



Performance & Nutrition Supplement

Cobb500TM Broiler

Performance & Nutrition
Supplement (2022)



www.cobb-vantress.com

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This supplement presents 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 in this supplement are the targets for achieving most cost-efficient performance.

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 in this supplement and the Cobb Broiler Management Guide.

Today's broiler farmers want to raise broilers that not only grow efficiently, but also have good livability and good animal welfare characteristics. Cobb's dedication for broiler genetics has generated incredible advances in economic traits related to feed efficiency, growth and muscle quality, and has also produced broiler genetics with improved cardiovascular function, better skeletal strength, and more uniform body size.

Today's modern broiler chickens are more efficient, more productive, and more robust than prior generations. This progress is due to Cobb's commitment to improved genetics and advances in husbandry methods that increase the performance potential and enhance the longevity and welfare outcomes.

Cobb continues to expand the variety of breed crosses to meet global customer needs and expectations. Cobb technical representatives are always available for any questions and assistance.

For more information visit Cobb Broiler Management Guide at:
<https://www.cobb-vantress.com/resource/management-guides>

METRIC (AS HATCHED)**C500 Broiler Performance Objectives (Metric) - As Hatched**

Age (days)	Weight (g)	Daily Gain (g)	Average Daily Gain (g) *	Cum. Feed Conversion **	Daily Feed Intake (g)	Cum. Feed Intake (g)
0	42					
1	55	13				
2	71	16				
3	90	19				
4	112	22				
5	138	26				
6	168	30				
7	202	34	22.9	0.891		180
8	240	38	24.8	0.917	40	220
9	283	43	26.8	0.933	44	264
10	330	47	28.8	0.952	50	314
11	382	52	30.9	0.971	57	371
12	440	58	33.2	0.991	64	435
13	503	63	35.5	1.012	73	508
14	570	67	37.7	1.029	80	588
15	639	69	39.8	1.050	84	672
16	711	72	41.8	1.072	91	763
17	786	75	43.8	1.094	98	861
18	864	78	45.7	1.116	105	966
19	945	81	47.5	1.138	111	1077
20	1029	84	49.4	1.160	118	1195
21	1116	87	51.1	1.182	125	1320
22	1205	89	52.9	1.203	131	1451
23	1296	91	54.5	1.224	137	1588
24	1390	94	56.2	1.245	143	1731
25	1486	96	57.8	1.265	149	1880
26	1583	97	59.3	1.284	154	2034
27	1682	99	60.7	1.303	160	2194
28	1783	101	62.2	1.322	165	2359
29	1886	103	63.6	1.340	169	2528
30	1989	103	64.9	1.358	174	2702
31	2094	105	66.2	1.375	178	2880
32	2200	106	67.4	1.392	183	3063
33	2306	106	68.6	1.409	187	3250
34	2413	107	69.7	1.425	191	3441
35	2521	108	70.8	1.441	194	3635
36	2629	108	71.9	1.457	198	3833
37	2738	109	72.9	1.474	202	4035
38	2846	108	73.8	1.490	206	4241
39	2954	108	74.7	1.506	209	4450
40	3062	108	75.5	1.522	213	4663
41	3170	108	76.3	1.539	217	4880
42	3278	108	77.1	1.555	220	5100
43	3384	106	77.7	1.573	224	5324
44	3490	106	78.4	1.590	228	5552
45	3595	105	79.0	1.608	232	5784
46	3699	104	79.5	1.627	236	6020
47	3801	102	80.0	1.646	239	6259
48	3902	101	80.4	1.666	243	6502
49	4001	99	80.8	1.686	247	6749
50	4099	98	81.1	1.707	250	6999
51	4195	96	81.4	1.728	253	7252
52	4289	94	81.7	1.750	256	7508
53	4380	91	81.9	1.772	258	7766
54	4470	90	82.0	1.795	260	8026
55	4557	87	82.1	1.818	261	8287
56	4641	84	82.1	1.842	262	8549

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

C500 Broiler Performance Objectives (Metric) - Male

Age (days)	Weight (g)	Daily Gain (g)	Average Daily Gain (g) *	Cum. Feed Conversion **	Daily Feed Intake (g)	Cum. Feed Intake (g)
0	42					
1	56	14				
2	72	16				
3	92	20				
4	114	22				
5	141	27				
6	171	30				
7	205	34	23.3	0.883		182
8	244	39	25.3	0.906	40	222
9	289	45	27.4	0.920	45	267
10	339	50	29.7	0.938	52	319
11	395	56	32.1	0.957	60	379
12	457	62	34.6	0.976	68	447
13	525	68	37.2	0.998	78	525
14	603	78	40.1	1.018	90	615
15	677	74	42.3	1.039	89	704
16	754	77	44.5	1.060	96	800
17	834	80	46.6	1.081	103	903
18	918	84	48.7	1.102	110	1013
19	1005	87	50.7	1.124	117	1130
20	1095	90	52.7	1.145	124	1254
21	1188	93	54.6	1.166	131	1385
22	1284	96	56.5	1.186	138	1523
23	1382	98	58.3	1.206	144	1667
24	1482	100	60.0	1.226	151	1818
25	1585	103	61.7	1.246	157	1975
26	1690	105	63.4	1.265	162	2137
27	1796	106	65.0	1.283	168	2305
28	1904	108	66.5	1.301	173	2478
29	2014	110	68.0	1.319	178	2656
30	2125	111	69.4	1.336	183	2839
31	2237	112	70.8	1.353	188	3027
32	2350	113	72.1	1.369	192	3219
33	2464	114	73.4	1.386	196	3415
34	2579	115	74.6	1.402	200	3615
35	2694	115	75.8	1.417	204	3819
36	2810	116	76.9	1.433	208	4027
37	2926	116	78.0	1.449	212	4239
38	3042	116	79.0	1.464	215	4454
39	3158	116	79.9	1.480	219	4673
40	3274	116	80.8	1.496	223	4896
41	3389	115	81.6	1.512	226	5122
42	3503	114	82.4	1.528	230	5352
43	3617	114	83.1	1.544	234	5586
44	3730	113	83.8	1.561	237	5823
45	3842	112	84.4	1.579	241	6064
46	3952	110	85.0	1.597	245	6309
47	4062	110	85.5	1.615	248	6557
48	4169	107	86.0	1.633	252	6809
49	4275	106	86.4	1.653	255	7064
50	4379	104	86.7	1.672	258	7322
51	4481	102	87.0	1.693	261	7583
52	4580	99	87.3	1.713	263	7846
53	4677	97	87.5	1.734	265	8111
54	4772	95	87.6	1.755	266	8377
55	4864	92	87.7	1.777	266	8643
56	4953	89	87.7	1.799	266	8909

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

METRIC (FEMALE)**C500 Broiler Performance Objectives (Metric) - Female**

Age (days)	Weight (g)	Daily Gain (g)	Average Daily Gain (g) *	Cum. Feed Conversion **	Daily Feed Intake (g)	Cum. Feed Intake (g)
0	42					
1	54	12				
2	70	16				
3	88	18				
4	110	22				
5	135	25				
6	165	30				
7	199	34	22.4	0.884		176
8	236	37	24.3	0.915	40	216
9	276	40	26.0	0.935	42	258
10	320	44	27.8	0.956	48	306
11	369	49	29.7	0.976	54	360
12	421	52	31.6	0.998	60	420
13	478	57	33.5	1.019	67	487
14	537	59	35.4	1.041	72	559
15	601	64	37.3	1.063	80	639
16	667	66	39.1	1.086	86	725
17	737	70	40.9	1.109	93	818
18	810	73	42.7	1.132	99	917
19	885	75	44.4	1.155	106	1023
20	963	78	46.1	1.178	112	1135
21	1043	80	47.7	1.200	118	1253
22	1126	83	49.3	1.222	124	1377
23	1210	84	50.8	1.244	130	1507
24	1297	87	52.3	1.265	136	1643
25	1386	89	53.8	1.286	141	1784
26	1477	91	55.2	1.306	146	1930
27	1569	92	56.6	1.326	151	2081
28	1662	93	57.9	1.346	156	2237
29	1757	95	59.1	1.364	161	2398
30	1853	96	60.4	1.383	165	2563
31	1951	98	61.6	1.400	169	2732
32	2049	98	62.7	1.418	173	2905
33	2148	99	63.8	1.435	177	3082
34	2248	100	64.9	1.452	181	3263
35	2348	100	65.9	1.469	185	3448
36	2448	100	66.8	1.486	188	3636
37	2549	101	67.8	1.502	192	3828
38	2650	101	68.6	1.519	196	4024
39	2751	101	69.5	1.535	199	4223
40	2852	101	70.3	1.552	203	4426
41	2952	100	71.0	1.570	207	4633
42	3052	100	71.7	1.587	210	4843
43	3151	99	72.3	1.605	214	5057
44	3250	99	72.9	1.623	218	5275
45	3348	98	73.5	1.642	222	5497
46	3445	97	74.0	1.662	226	5723
47	3540	95	74.4	1.682	230	5953
48	3635	95	74.9	1.703	234	6187
49	3728	93	75.2	1.724	238	6425
50	3819	91	75.5	1.746	242	6667
51	3909	90	75.8	1.769	245	6912
52	3997	88	76.1	1.792	249	7161
53	4083	86	76.3	1.816	252	7413
54	4167	84	76.4	1.840	254	7667
55	4249	82	76.5	1.865	256	7923
56	4329	80	76.6	1.890	257	8180

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

C500 Broiler Performance Objectives (Imperial) - As Hatched

Age (days)	Weight (lb)	Daily Gain (lb)	Average Daily Gain (lb) *	Cum. Feed Conversion **	Daily Feed Intake (lb)	Cum. Feed Intake (lb)
0	0.09					
1	0.12	0.03				
2	0.16	0.04				
3	0.20	0.04				
4	0.25	0.05				
5	0.30	0.05				
6	0.37	0.07				
7	0.45	0.08	0.05	0.891		0.40
8	0.53	0.08	0.06	0.917	0.09	0.49
9	0.62	0.09	0.06	0.933	0.10	0.59
10	0.73	0.11	0.06	0.952	0.11	0.70
11	0.84	0.11	0.07	0.971	0.13	0.83
12	0.97	0.13	0.07	0.991	0.14	0.97
13	1.11	0.14	0.08	1.012	0.16	1.13
14	1.26	0.15	0.08	1.029	0.18	1.31
15	1.41	0.15	0.09	1.050	0.19	1.50
16	1.57	0.16	0.09	1.072	0.20	1.70
17	1.73	0.16	0.10	1.094	0.22	1.92
18	1.90	0.17	0.10	1.116	0.23	2.15
19	2.08	0.18	0.10	1.138	0.24	2.39
20	2.27	0.19	0.11	1.160	0.26	2.65
21	2.46	0.19	0.11	1.182	0.28	2.93
22	2.66	0.20	0.12	1.203	0.29	3.22
23	2.86	0.20	0.12	1.224	0.30	3.52
24	3.06	0.20	0.12	1.245	0.32	3.84
25	3.28	0.22	0.13	1.265	0.33	4.17
26	3.49	0.21	0.13	1.284	0.34	4.51
27	3.71	0.22	0.13	1.303	0.35	4.86
28	3.93	0.22	0.14	1.322	0.36	5.22
29	4.16	0.23	0.14	1.340	0.37	5.59
30	4.38	0.22	0.14	1.358	0.38	5.97
31	4.62	0.24	0.15	1.375	0.39	6.36
32	4.85	0.23	0.15	1.392	0.40	6.76
33	5.08	0.23	0.15	1.409	0.41	7.17
34	5.32	0.24	0.15	1.425	0.42	7.59
35	5.56	0.24	0.16	1.441	0.43	8.02
36	5.80	0.24	0.16	1.457	0.44	8.46
37	6.04	0.24	0.16	1.474	0.45	8.91
38	6.27	0.23	0.16	1.490	0.45	9.36
39	6.51	0.24	0.16	1.506	0.46	9.82
40	6.75	0.24	0.17	1.522	0.47	10.29
41	6.99	0.24	0.17	1.539	0.48	10.77
42	7.23	0.24	0.17	1.555	0.49	11.26
43	7.46	0.23	0.17	1.573	0.49	11.75
44	7.69	0.23	0.17	1.590	0.50	12.25
45	7.93	0.24	0.17	1.608	0.51	12.76
46	8.15	0.22	0.18	1.627	0.52	13.28
47	8.38	0.23	0.18	1.646	0.53	13.81
48	8.60	0.22	0.18	1.666	0.54	14.35
49	8.82	0.22	0.18	1.686	0.54	14.89
50	9.04	0.22	0.18	1.707	0.55	15.44
51	9.25	0.21	0.18	1.728	0.56	16.00
52	9.46	0.21	0.18	1.750	0.56	16.56
53	9.66	0.20	0.18	1.772	0.57	17.13
54	9.85	0.19	0.18	1.795	0.57	17.70
55	10.05	0.20	0.18	1.818	0.58	18.28
56	10.23	0.18	0.18	1.842	0.58	18.86

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

IMPERIAL (MALE)**C500 Broiler Performance Objectives (Imperial) - Male**

Age (days)	Weight (lb)	Daily Gain (lb)	Average Daily Gain (lb) *	Cum. Feed Conversion **	Daily Feed Intake (lb)	Cum. Feed Intake (lb)
0	0.09					
1	0.12	0.03				
2	0.16	0.04				
3	0.20	0.04				
4	0.25	0.05				
5	0.31	0.06				
6	0.38	0.07				
7	0.45	0.07	0.05	0.883		0.40
8	0.54	0.09	0.06	0.906	0.09	0.49
9	0.64	0.10	0.06	0.920	0.10	0.59
10	0.75	0.11	0.07	0.938	0.11	0.70
11	0.87	0.12	0.07	0.957	0.13	0.83
12	1.01	0.14	0.08	0.976	0.15	0.98
13	1.16	0.15	0.08	0.998	0.17	1.15
14	1.33	0.17	0.09	1.018	0.20	1.35
15	1.49	0.16	0.09	1.039	0.20	1.55
16	1.66	0.17	0.10	1.060	0.21	1.76
17	1.84	0.18	0.10	1.081	0.23	1.99
18	2.02	0.18	0.11	1.102	0.24	2.23
19	2.22	0.20	0.11	1.124	0.26	2.49
20	2.41	0.19	0.12	1.145	0.27	2.76
21	2.62	0.21	0.12	1.166	0.29	3.05
22	2.83	0.21	0.12	1.186	0.30	3.35
23	3.05	0.22	0.13	1.206	0.32	3.67
24	3.27	0.22	0.13	1.226	0.33	4.00
25	3.49	0.22	0.14	1.246	0.35	4.35
26	3.73	0.24	0.14	1.265	0.36	4.71
27	3.96	0.23	0.14	1.283	0.37	5.08
28	4.20	0.24	0.15	1.301	0.38	5.46
29	4.44	0.24	0.15	1.319	0.39	5.85
30	4.68	0.24	0.15	1.336	0.40	6.25
31	4.93	0.25	0.16	1.353	0.41	6.66
32	5.18	0.25	0.16	1.369	0.42	7.08
33	5.43	0.25	0.16	1.386	0.43	7.51
34	5.69	0.26	0.16	1.402	0.44	7.95
35	5.94	0.25	0.17	1.417	0.45	8.40
36	6.19	0.25	0.17	1.433	0.46	8.86
37	6.45	0.26	0.17	1.449	0.47	9.33
38	6.71	0.26	0.17	1.464	0.47	9.80
39	6.96	0.25	0.18	1.480	0.48	10.28
40	7.22	0.26	0.18	1.496	0.49	10.77
41	7.47	0.25	0.18	1.512	0.50	11.27
42	7.72	0.25	0.18	1.528	0.51	11.78
43	7.97	0.25	0.18	1.544	0.52	12.30
44	8.22	0.25	0.18	1.561	0.52	12.82
45	8.47	0.25	0.19	1.579	0.53	13.35
46	8.71	0.24	0.19	1.597	0.54	13.89
47	8.96	0.25	0.19	1.615	0.55	14.44
48	9.19	0.23	0.19	1.633	0.56	15.00
49	9.42	0.23	0.19	1.653	0.56	15.56
50	9.65	0.23	0.19	1.672	0.57	16.13
51	9.88	0.23	0.19	1.693	0.58	16.71
52	10.10	0.22	0.19	1.713	0.58	17.29
53	10.31	0.21	0.19	1.734	0.58	17.87
54	10.52	0.21	0.19	1.755	0.59	18.46
55	10.72	0.20	0.19	1.777	0.59	19.05
56	10.92	0.20	0.19	1.799	0.59	19.64

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

C500 Broiler Performance Objectives (Imperial) - Female

Age (days)	Weight (lb)	Daily Gain (lb)	Average Daily Gain (lb) **	Cum. Feed Conversion **	Daily Feed Intake (lb)	Cum. Feed Intake (lb)
0	0.09					
1	0.12	0.03				
2	0.15	0.03				
3	0.19	0.04				
4	0.24	0.05				
5	0.30	0.06				
6	0.36	0.06				
7	0.44	0.08	0.05	0.884		0.39
8	0.52	0.08	0.05	0.915	0.09	0.48
9	0.61	0.09	0.06	0.935	0.09	0.57
10	0.71	0.10	0.06	0.956	0.11	0.68
11	0.81	0.10	0.07	0.976	0.12	0.80
12	0.93	0.12	0.07	0.998	0.13	0.93
13	1.05	0.12	0.07	1.019	0.15	1.08
14	1.18	0.13	0.08	1.041	0.16	1.24
15	1.32	0.14	0.08	1.063	0.18	1.42
16	1.47	0.15	0.09	1.086	0.19	1.61
17	1.62	0.15	0.09	1.109	0.21	1.82
18	1.79	0.17	0.09	1.132	0.22	2.04
19	1.95	0.16	0.10	1.155	0.23	2.27
20	2.12	0.17	0.10	1.178	0.25	2.52
21	2.30	0.18	0.11	1.200	0.26	2.78
22	2.48	0.18	0.11	1.222	0.27	3.05
23	2.67	0.19	0.11	1.244	0.29	3.34
24	2.86	0.19	0.12	1.265	0.30	3.64
25	3.06	0.20	0.12	1.286	0.31	3.95
26	3.26	0.20	0.12	1.306	0.32	4.27
27	3.46	0.20	0.12	1.326	0.33	4.60
28	3.66	0.20	0.13	1.346	0.34	4.94
29	3.87	0.21	0.13	1.364	0.35	5.29
30	4.09	0.22	0.13	1.383	0.36	5.65
31	4.30	0.21	0.14	1.400	0.37	6.02
32	4.52	0.22	0.14	1.418	0.38	6.40
33	4.74	0.22	0.14	1.435	0.39	6.79
34	4.96	0.22	0.14	1.452	0.40	7.19
35	5.18	0.22	0.15	1.469	0.41	7.60
36	5.40	0.22	0.15	1.486	0.41	8.01
37	5.62	0.22	0.15	1.502	0.42	8.43
38	5.84	0.22	0.15	1.519	0.43	8.86
39	6.06	0.22	0.15	1.535	0.44	9.30
40	6.29	0.23	0.16	1.552	0.45	9.75
41	6.51	0.22	0.16	1.570	0.46	10.21
42	6.73	0.22	0.16	1.587	0.46	10.67
43	6.95	0.22	0.16	1.605	0.47	11.14
44	7.17	0.22	0.16	1.623	0.48	11.62
45	7.38	0.21	0.16	1.642	0.49	12.11
46	7.59	0.21	0.16	1.662	0.50	12.61
47	7.80	0.21	0.16	1.682	0.51	13.12
48	8.01	0.21	0.17	1.703	0.52	13.64
49	8.22	0.21	0.17	1.724	0.52	14.16
50	8.42	0.20	0.17	1.746	0.53	14.69
51	8.62	0.20	0.17	1.769	0.54	15.23
52	8.81	0.19	0.17	1.792	0.55	15.78
53	9.00	0.19	0.17	1.816	0.56	16.34
54	9.19	0.19	0.17	1.840	0.56	16.90
55	9.37	0.18	0.17	1.865	0.56	17.46
56	9.54	0.17	0.17	1.890	0.57	18.03

* Average Daily Gain calculation formula = (weight - weight at day 0) / age in days

** Feed conversion does not account for broiler mortality.

Recommended Nutrient Levels for Medium and Large Broilers

		Preferred in Medium and Large Bird Market				
		Starter	Grower 1	Grower 2	Finisher 1	Finisher 2*
Feeding Amount/Bird	g lb	455 1.00	2100 4.63	2100 4.63	2100 4.63	
Period (Reference)	days	0-12	13-28	29-39	40-49	> 50
Feed Structure		Crumble	Pellet	Pellet	Pellet	Pellet
Crude Protein	%	21-22	19-20	18-19	17-18	17-18
Metabolizable energy (AMEn**)	MJ/kg	12.13	12.34	12.76	12.97	13.18
	Kcal/kg	2900	2950	3050	3100	3150
	Kcal/lb	1315	1338	1383	1406	1429
Digestible Amino Acids						
Lysine	%	1.26	1.16	1.06	0.96	0.86
Methionine	%	0.48	0.47	0.44	0.40	0.35
Methionine + Cystine	%	0.94	0.88	0.82	0.74	0.66
Tryptophan	%	0.21	0.18	0.19	0.17	0.15
Threonine	%	0.86	0.78	0.70	0.62	0.56
Arginine	%	1.36	1.25	1.16	1.05	0.95
Valine	%	0.96	0.88	0.81	0.74	0.67
Isoleucine	%	0.81	0.75	0.69	0.63	0.57
Leucine	%	1.39	1.28	1.17	1.06	0.95
Minerals						
Calcium	%	0.96	0.80	0.74	0.72	0.68
Available Phosphorus***	%	0.58	0.40	0.37	0.36	0.34
Sodium	%	0.16-0.23	0.16-0.23	0.16-0.23	0.16-0.23	0.16-0.23
Chloride	%	0.16-0.30	0.16-0.30	0.16-0.30	0.16-0.30	0.16-0.30
Potassium	%	0.60-0.95	0.60-0.95	0.60-0.95	0.60-0.95	0.60-0.95
Linoleic Acid	%	1.20	1.20	1.00	1.00	1.00

* Should withdrawal feed be required, use same finisher specifications.

** Energy system is based on the Apparent Metabolizable Energy corrected by Nitrogen (AMEn).

*** When using exogenous enzymes please consult with your enzyme company and nutritionist.

		Balanced Digestible Amino Acid Ratios				
		Starter	Grower 1	Grower 2	Finisher 1	Finisher 2
		%	%	%	%	%
Lysine*		100	100	100	100	100
Methionine		38	40	41	41	41
Methionine + Cystine		75	76	77	77	77
Tryptophan		16	16	18	18	18
Threonine		68	67	66	65	65
Arginine		108	108	109	109	110
Valine		76	76	76	77	78
Isoleucine		64	64	65	66	66
Leucine**		110	110	110	110	110

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

** If digestible leucine to digestible lysine ratio goes over 145 %, digestible valine requirement may have to be increased. Please refer to latest published literature on branched chain amino acid ratios for broilers or contact Cobb nutrition team.

Recommended Nutrient Levels for Small Broilers

		Preferred in Small Bird Market			
		Starter	Grower 1	Grower 2	Finisher *
Feeding Amount/Bird	g lb	250 0.55	750 1.65	1350 2.98	
Period (Reference)	days	0-8	9-18	19-28	> 29
Feed Structure		Crumble	Crumble / Pellet	Pellet	Pellet
Crude Protein	%	21-22	19-20	18-19	17-18
Metabolizable energy (AMEn**)	MJ/kg	12.13	12.34	12.64	12.97
	Kcal/kg	2900	2950	3020	3100
	Kcal/lb	1315	1338	1370	1406
Digestible Amino Acids					
Lysine	%	1.26	1.16	1.08	1.04
Methionine	%	0.48	0.47	0.44	0.43
Methionine + Cystine	%	0.94	0.88	0.83	0.80
Tryptophan	%	0.21	0.18	0.19	0.18
Threonine	%	0.86	0.78	0.71	0.67
Arginine	%	1.36	1.25	1.18	1.13
Valine	%	0.96	0.88	0.82	0.80
Isoleucine	%	0.81	0.75	0.70	0.69
Leucine	%	1.39	1.28	1.19	1.14
Minerals					
Calcium	%	0.96	0.80	0.74	0.72
Available Phosphorus***	%	0.54	0.40	0.37	0.36
Sodium	%	0.16-0.23	0.16-0.23	0.16-0.23	0.16-0.23
Chloride	%	0.16-0.30	0.16-0.30	0.16-0.30	0.16-0.30
Potassium	%	0.60-0.95	0.60-0.95	0.60-0.95	0.60-0.95
Linoleic Acid	%	1.20	1.20	1.00	1.00

* Should withdrawal feed be required, use same finisher specifications.

** Energy system is based on the Apparent Metabolizable Energy corrected by Nitrogen (AMEn).

*** When using exogenous enzymes please consult with your enzyme company and nutritionist.

Balanced Digestible Amino Acid Ratios					
	Starter	Grower 1	Grower 2	Finisher	
	%	%	%	%	
Lysine*	100	100	100	100	
Methionine	38	40	41	41	
Methionine + Cystine	75	76	77	77	
Tryptophan	16	16	18	18	
Threonine	68	67	66	65	
Arginine	108	108	109	109	
Valine	76	76	76	77	
Isoleucine	64	64	65	66	
Leucine**	110	110	110	110	

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

** If digestible leucine to digestible lysine ratio goes over 145 %, digestible valine requirement may have to be increased. Please refer to latest published literature on branched chain amino acid ratios for broilers or contact Cobb nutrition team.

Supplementary Vitamins and Trace Elements (Per Tonne)

Nutrients	Unit	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*	g	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.

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).

MIU = million international units

KIU = thousand international units

g = grams

mg = milligrams

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 live weight at any given age.

Age

- ✓ Carcass and breast meat yield increase as a function of age.
- ✓ Older birds processed at the same weight as their younger counterparts will often yield more.

Feed, yield and economics

- ✓ Carcass composition is affected by nutrition.
- ✓ Rations of varying nutrient density will affect yield in different ways. Cobb data has shown that protein and amino acids can be elevated by approximately 8 % 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 Cobb500 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 team will gladly assist customers to match specific economic priorities with formulation; however, the recommendations in this supplement represent very sound overall baseline levels.

As Hatched Cobb 500 Broiler Yield (% of Live Weight)

Live Weight		Carcass	Boneless Breast	Whole Leg	Wing	Thigh	Drumstick
g	lb	%	%	%	%	%	%
1590	3.50	73.40	23.13	22.17	7.56	12.9	9.27
1700	3.75	73.68	23.45	22.27	7.56	13.00	9.27
1810	4.00	73.90	23.78	22.38	7.56	13.10	9.28
2040	4.50	74.38	24.40	22.58	7.57	13.28	9.30
2270	5.00	74.80	24.98	22.74	7.57	13.42	9.32
2500	5.50	75.20	25.55	22.88	7.58	13.55	9.33
2730	6.00	75.55	26.05	23.01	7.58	13.66	9.35
2950	6.50	75.85	26.50	23.12	7.58	13.76	9.36
3180	7.00	76.15	26.93	23.22	7.58	13.85	9.37
3400	7.50	76.45	27.30	23.33	7.59	13.95	9.38
3630	8.00	76.75	27.70	23.44	7.59	14.05	9.39
3860	8.50	77.00	28.05	23.55	7.59	14.15	9.40
4090	9.00	77.25	28.38	23.62	7.59	14.22	9.40
4320	9.50	77.50	28.68	23.68	7.59	14.26	9.42

YIELD PERFORMANCE

Female Cobb 500 Broiler Yield (% of Live Weight)							
Live Weight		Carcass	Boneless	Whole Leg	Wing	Thigh	Drumstick
g	lb	%	Breast %	%	%	%	%
1590	3.50	73.90	23.40	22.30	7.73	13.15	9.15
1700	3.75	74.15	23.75	22.34	7.71	13.22	9.12
1810	4.00	74.35	24.10	22.38	7.68	13.28	9.10
2040	4.50	74.75	24.80	22.48	7.64	13.40	9.08
2270	5.00	75.15	25.45	22.54	7.61	13.48	9.06
2500	5.50	75.50	26.10	22.59	7.57	13.55	9.04
2730	6.00	75.80	26.70	22.65	7.54	13.62	9.03
2950	6.50	76.05	27.20	22.69	7.51	13.68	9.01
3180	7.00	76.30	27.70	22.73	7.49	13.73	9.00
3400	7.50	76.55	28.15	22.75	7.46	13.77	8.98
3630	8.00	76.80	28.60	22.78	7.44	13.82	8.96
3860	8.50	77.00	29.00	22.80	7.42	13.86	8.94
4090	9.00	77.20	29.40	22.82	7.40	13.90	8.92
4320	9.50	77.40	29.75	22.85	7.38	13.93	8.92

Male Cobb 500 Broiler Yield (% of Live Weight)							
Live Weight		Carcass	Boneless	Whole Leg	Wing	Thigh	Drumstick
g	lb	%	Breast %	%	%	%	%
1590	3.50	72.90	22.85	22.03	7.40	12.65	9.38
1700	3.75	73.20	23.15	22.18	7.42	12.76	9.42
1810	4.00	73.45	23.45	22.32	7.44	12.87	9.45
2040	4.50	74.00	24.00	22.61	7.49	13.10	9.51
2270	5.00	74.45	24.50	22.87	7.54	13.30	9.57
2500	5.50	74.90	25.00	23.10	7.58	13.48	9.62
2730	6.00	75.30	25.40	23.31	7.62	13.65	9.66
2950	6.50	75.65	25.80	23.50	7.65	13.80	9.70
3180	7.00	76.00	26.15	23.69	7.68	13.95	9.74
3400	7.50	76.35	26.45	23.86	7.71	14.08	9.78
3630	8.00	76.70	26.80	24.02	7.74	14.20	9.82
3860	8.50	77.00	27.10	24.17	7.76	14.32	9.85
4090	9.00	77.30	27.35	24.30	7.78	14.42	9.88
4320	9.50	77.60	27.60	24.43	7.80	14.52	9.91

- ✓ All yield values are dry yield (before chiller) based on percentage of live weight.
- ✓ Carcass refers to the eviscerated bird with feet removed at the hock joint.
- ✓ Boneless breast meat is calculated without skin and bone.
- ✓ Thigh, drumstick and wing are calculated with skin and bone.





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