

# Broiler Performance & Nutrition Supplement

Europe, Middle East, Africa version

Cobb500™

broiler

[cobb-vantress.com](http://cobb-vantress.com)



## Introduction

This supplement presents broiler performance targets for your Cobb 500 broilers, together with recommendations on nutritional specifications designed to help achieve these targets.

Broiler performance varies tremendously from country to country, these targets are based on a combination of field performance and experience from around the world. The growth rates shown are the targets for achieving cost-efficient performance.

The recommendations present formulations balanced to suit your Cobb 500 broiler. Higher nutrient density rations are being promoted in some regions to benefit specific breeds, but this is not the approach for the Cobb 500 broiler.

The key micronutrients in particular are well known for their effect on the development and mineralization of bone. It is essential that adequate levels of these are presented to the bird throughout their development. Supplementation of compound rations with whole or cracked whole wheat can significantly deplete levels of calcium and phosphorus. This factor should be carefully considered when calculating mineral levels for compound diets.

Quality and availability of raw materials may require nutrient levels to be adjusted. Formulations may need to be 'fine tuned' to suit your specific requirements and environment.

Cobb recommends the use of appropriate light control programs to help manage Cobb 500 broilers to achieve the best economic performance. Advice on implementing these can be found in the Cobb Broiler Management Guide.

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.

# Cobb 500 Broiler Performance & Nutrition Supplement

## AS HATCHED

Age days	Weight for Age	Average Daily Gain	Cumulative Feed Conversion	Daily Feed Consumption	Cumulative Feed Consumption
0	41				
1	52				
2	64				
3	78				
4	95				
5	115				
6	138				
<b>7</b>	<b>164</b>	<b>23.4</b>	<b>0.856</b>		<b>140</b>
8	193	24.1	0.884	30	171
9	225	25.0	0.912	35	205
10	260	26.0	0.941	39	245
11	298	27.1	0.970	44	289
12	339	28.3	1.000	50	339
13	383	29.5	1.029	55	394
<b>14</b>	<b>430</b>	<b>30.7</b>	<b>1.059</b>	<b>61</b>	<b>455</b>
15	480	32.0	1.088	67	522
16	533	33.3	1.118	73	596
17	589	34.6	1.147	80	676
18	648	36.0	1.176	86	762
19	710	37.4	1.205	93	855
20	775	38.8	1.233	100	956
<b>21</b>	<b>843</b>	<b>40.1</b>	<b>1.261</b>	<b>107</b>	<b>1063</b>
22	914	41.6	1.289	115	1178
23	988	43.0	1.316	122	1301
24	1065	44.4	1.343	130	1431
25	1145	45.8	1.369	137	1568
26	1227	47.2	1.395	144	1712
27	1311	48.6	1.421	151	1863
<b>28</b>	<b>1397</b>	<b>49.9</b>	<b>1.446</b>	<b>157</b>	<b>2020</b>
29	1484	51.2	1.471	163	2183
30	1572	52.4	1.495	168	2350
31	1661	53.6	1.519	172	2523
32	1749	54.7	1.543	176	2698
33	1838	55.7	1.566	180	2878
34	1928	56.7	1.589	184	3062
<b>35</b>	<b>2017</b>	<b>57.6</b>	<b>1.611</b>	<b>187</b>	<b>3249</b>
36	2106	58.5	1.633	190	3439
37	2194	59.3	1.655	192	3631
38	2282	60.1	1.676	195	3826
39	2370	60.8	1.698	197	4022
40	2456	61.4	1.719	198	4221
41	2541	62.0	1.739	200	4420
<b>42</b>	<b>2626</b>	<b>62.5</b>	<b>1.760</b>	<b>201</b>	<b>4621</b>
43	2709	63.0	1.780	202	4823
44	2791	63.4	1.801	202	5025
45	2871	63.8	1.821	203	5228
46	2950	64.1	1.841	203	5431
47	3027	64.4	1.862	204	5635
48	3103	64.6	1.882	204	5839
<b>49</b>	<b>3177</b>	<b>64.8</b>	<b>1.902</b>	<b>204</b>	<b>6043</b>
50	3249	65.0	1.923	203	6246
51	3319	65.1	1.943	203	6449
52	3388	65.2	1.963	202	6651
53	3455	65.2	1.984	202	6853
54	3520	65.2	2.004	201	7053
55	3583	65.1	2.024	200	7253
<b>56</b>	<b>3644</b>	<b>65.1</b>	<b>2.045</b>	<b>198</b>	<b>7451</b>

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## FEMALES

Age days	Weight for Age	Average Daily Gain	Cumulative Feed Conversion	Daily Feed Consumption	Cumulative Feed Consumption
0	41				
1	51				
2	63				
3	76				
4	92				
5	111				
6	133				
<b>7</b>	<b>158</b>	<b>22.6</b>	<b>0.876</b>		<b>138</b>
8	186	23.3	0.901	29	168
9	216	24.0	0.927	33	200
10	250	25.0	0.955	38	239
11	286	26.0	0.983	42	281
12	325	27.1	1.012	48	329
13	367	28.2	1.041	53	382
<b>14</b>	<b>411</b>	<b>29.4</b>	<b>1.071</b>	<b>58</b>	<b>440</b>
15	459	30.6	1.101	65	505
16	509	31.8	1.131	70	576
17	562	33.1	1.161	77	653
18	618	34.3	1.191	84	736
19	676	35.6	1.221	89	825
20	737	36.9	1.250	96	922
<b>21</b>	<b>801</b>	<b>38.1</b>	<b>1.280</b>	<b>103</b>	<b>1025</b>
22	868	39.5	1.309	111	1136
23	937	40.7	1.337	117	1253
24	1009	42.0	1.366	125	1378
25	1083	43.3	1.393	131	1509
26	1159	44.6	1.421	138	1647
27	1237	45.8	1.448	144	1791
<b>28</b>	<b>1316</b>	<b>47.0</b>	<b>1.475</b>	<b>150</b>	<b>1941</b>
29	1396	48.1	1.501	155	2096
30	1476	49.2	1.527	159	2255
31	1557	50.2	1.553	164	2418
32	1638	51.2	1.579	167	2586
33	1718	52.1	1.604	169	2755
34	1799	52.9	1.628	174	2930
<b>35</b>	<b>1879</b>	<b>53.7</b>	<b>1.653</b>	<b>176</b>	<b>3106</b>
36	1958	54.4	1.677	178	3284
37	2037	55.1	1.701	182	3466
38	2114	55.6	1.725	181	3647
39	2191	56.2	1.749	185	3832
40	2266	56.7	1.773	185	4017
41	2340	57.1	1.796	186	4203
<b>42</b>	<b>2412</b>	<b>57.4</b>	<b>1.820</b>	<b>186</b>	<b>4389</b>
43	2483	57.7	1.843	188	4577
44	2552	58.0	1.867	187	4764
45	2619	58.2	1.891	187	4951
46	2684	58.3	1.914	187	5138
47	2748	58.5	1.939	189	5327
48	2809	58.5	1.963	187	5515
<b>49</b>	<b>2867</b>	<b>58.5</b>	<b>1.988</b>	<b>185</b>	<b>5700</b>
50	2927	58.5	2.011	187	5887
51	2983	58.5	2.035	184	6071
52	3037	58.4	2.059	183	6254
53	3089	58.3	2.083	181	6436
54	3140	58.1	2.107	182	6618
55	3188	58.0	2.132	178	6795
<b>56</b>	<b>3235</b>	<b>57.8</b>	<b>2.156</b>	<b>178</b>	<b>6973</b>

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MALES					
Age days	Weight for Age	Average Daily Gain	Cumulative Feed Conversion	Daily Feed Consumption	Cumulative Feed Consumption
0	41				
1	53				
2	65				
3	80				
4	98				
5	119				
6	143				
<b>7</b>	<b>170</b>	<b>24.3</b>	<b>0.836</b>		<b>142</b>
8	200	25.0	0.867	31	173
9	234	26.0	0.897	37	210
10	270	27.0	0.927	40	250
11	310	28.2	0.957	46	297
12	353	29.4	0.987	52	349
13	399	30.7	1.017	57	406
<b>14</b>	<b>449</b>	<b>32.1</b>	<b>1.047</b>	<b>64</b>	<b>470</b>
15	501	33.4	1.076	69	539
16	557	34.8	1.104	76	615
17	616	36.2	1.133	83	698
18	678	37.7	1.161	89	787
19	744	39.2	1.189	97	884
20	813	40.7	1.216	104	989
<b>21</b>	<b>885</b>	<b>42.1</b>	<b>1.243</b>	<b>111</b>	<b>1100</b>
22	961	43.7	1.269	120	1220
23	1040	45.2	1.295	127	1347
24	1122	46.8	1.320	135	1481
25	1207	48.3	1.345	142	1624
26	1295	49.8	1.370	150	1774
27	1385	51.3	1.394	156	1930
<b>28</b>	<b>1478</b>	<b>52.8</b>	<b>1.417</b>	<b>164</b>	<b>2095</b>
29	1572	54.2	1.440	169	2264
30	1668	55.6	1.463	176	2440
31	1764	56.9	1.485	179	2619
32	1861	58.2	1.507	184	2804
33	1958	59.3	1.528	188	2991
34	2056	60.5	1.549	192	3184
<b>35</b>	<b>2155</b>	<b>61.6</b>	<b>1.569</b>	<b>197</b>	<b>3381</b>
36	2253	62.6	1.589	199	3580
37	2352	63.6	1.608	203	3783
38	2450	64.5	1.627	204	3987
39	2548	65.3	1.646	207	4194
40	2646	66.2	1.665	210	4404
41	2743	66.9	1.683	211	4615
<b>42</b>	<b>2839</b>	<b>67.6</b>	<b>1.700</b>	<b>212</b>	<b>4827</b>
43	2934	68.2	1.718	213	5040
44	3029	68.8	1.735	215	5255
45	3122	69.4	1.752	214	5468
46	3215	69.9	1.768	216	5685
47	3306	70.3	1.784	215	5899
48	3397	70.8	1.801	217	6117
<b>49</b>	<b>3486</b>	<b>71.1</b>	<b>1.817</b>	<b>216</b>	<b>6333</b>
50	3571	71.4	1.833	214	6546
51	3655	71.7	1.849	212	6758
52	3739	71.9	1.864	211	6969
53	3820	72.1	1.880	211	7180
54	3900	72.2	1.895	210	7391
55	3978	72.3	1.911	209	7601
<b>56</b>	<b>4054</b>	<b>72.4</b>	<b>1.927</b>	<b>209</b>	<b>7808</b>

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## Broiler Nutrition

Recommended Broiler Feed Formulation					
		Starter	Grower	Finisher 1	Finisher 2
<b>FEEDING AMOUNT/bird</b>		<b>250 g</b>	<b>1000 g</b>		
<b>FEEDING PERIOD days</b>		<b>0 - 10</b>	<b>11 - 22</b>	<b>23 - 42</b>	<b>42 +</b>
<b>Crude Protein</b>	%	21.00	19.00	18.00	17.00
<b>Metabolizable Energy</b>	MJ/kg Kcal/kg	12.50 2988	12.90 3083	13.29 3176	13.29 3176
<b>Lysine</b>	%	1.20	1.10	1.05	1.00
<b>Digestible Lysine</b>	%	1.08	0.99	0.95	0.90
<b>Methionine</b>	%	0.46	0.44	0.43	0.41
<b>Digestible Methionine</b>	%	0.41	0.40	0.39	0.37
<b>Met + Cys</b>	%	0.89	0.84	0.82	0.78
<b>Digestible Met + Cys</b>	%	0.80	0.75	0.74	0.70
<b>Tryptophan</b>	%	0.20	0.19	0.19	0.18
<b>Threonine</b>	%	0.79	0.74	0.72	0.69
<b>Arginine</b>	%	1.26	1.17	1.13	1.08
<b>Calcium</b>	%	1.00	0.96	0.90	0.90
<b>Available Phosphorus</b>	%	0.50	0.48	0.45	0.45
<b>Sodium</b>	%	0.20	0.17	0.16	0.16
<b>Chloride</b>	%	0.20	0.20	0.20	0.20
<b>Linoleic Acid</b>	%	1.25	1.25	1.00	1.00
<b>Cal: Protein Ratio</b>		142	162	176	187

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## Broiler Nutrition

Supplementary levels of Vitamins and Trace elements (per tonne)				
		Starter	Grower	Finisher 1/2
<b>Vitamin A (Maize diets)</b>	(MIU)	13	11	10
<b>Vitamin A (Wheat diets)</b>		14	12	11
<b>Vitamin D3</b>	(MIU)	5	5	5
<b>Vitamin E</b>	(KIU)	80	60	50
<b>Vitamin K</b>	(g)	4	3	3
<b>Vitamin B1 (thiamine)</b>	(g)	4	2	2
<b>Vitamin B2 (riboflavin)</b>	(g)	9	8	8
<b>Vitamin B6 (pyridoxine)</b>	(g)	4	4	3
<b>Vitamin B12</b>	(mg)	20	15	15
<b>Biotin (Maize Diets)</b>	(mg)	150	120	120
<b>Biotin (Wheat Diets)</b>		200	200	180
<b>Choline</b>	(g)	400	400	350
<b>Folic Acid</b>	(g)	2	2	1.5
<b>Nicotinic Acid</b>	(g)	60	50	50
<b>Pantothenic Acid</b>	(g)	15	12	12
<b>Manganese</b>	(g)	100	100	100
<b>Zinc</b>	(g)	100	100	100
<b>Iron</b>	(g)	40	40	40
<b>Copper</b>	(g)	15	15	15
<b>Iodine</b>	(g)	1	1	1
<b>Selenium</b>	(g)	0.3	0.3	0.3

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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