

TABLE 1. Nutrient Requirements of Broilers as Percentages or Units per Kilogram of Diet (90 percent dry matter)

Nutrient	Unit	0 to 3 Weeks ^a ; 3,200 ^b	3 to 6 Weeks ^a ; 3,200 ^b	6 to 8 Weeks ^a ; 3,200 ^b
Protein and amino acids				
Crude protein ^c	%	23.00	20.00	18.00
Arginine	%	1.25	1.10	1.00
Glycine + serine	%	1.25	1.14	0.97
Histidine	%	0.35	0.32	0.27
Isoleucine	%	0.80	0.73	0.62
Leucine	%	1.20	1.09	0.93
Lysine	%	1.10	1.00	0.85
Methionine	%	0.50	0.38	0.32
Methionine + cystine	%	0.90	0.72	0.60
Phenylalanine	%	0.72	0.65	0.56
Phenylalanine + tyrosine	%	1.34	1.22	1.04
Proline	%	0.60	0.55	0.46
Threonine	%	0.80	0.74	0.68
Tryptophan	%	0.20	0.18	0.16
Valine	%	0.90	0.82	0.70
Fat				
Linoleic acid	%	1.00	1.00	1.00
Macrominerals				
Calcium ^d	%	1.00	0.90	0.80
Chlorine	%	0.20	0.15	0.12
Magnesium	mg	600	600	600
Nonphytate phosphorus	%	0.45	0.35	0.30
Potassium	%	0.30	0.30	0.30
Sodium	%	0.20	0.15	0.12
Trace minerals				
Copper	mg	8	8	8
Iodine	mg	0.35	0.35	0.35
Iron	mg	80	80	80
Manganese	mg	60	60	60
Selenium	mg	0.15	0.15	0.15
Zinc	mg	40	40	40
Fat soluble vitamins				
A	IU	1,500	1,500	1,500
D ₃	ICU	200	200	200
E	IU	10	10	10
K	mg	0.50	0.50	0.50
Water soluble vitamins				
B ₁₂	mg	0.01	0.01	0.007
Biotin	mg	0.15	0.15	0.12
Choline	mg	1,300	1,000	750
Folacin	mg	0.55	0.55	0.50
Niacin	mg	35	30	25
Pantothenic acid	mg	10	10	10
Pyridoxine	mg	3.5	3.5	3.0
Riboflavin	mg	3.6	3.6	3
Thiamin	mg	1.80	1.80	1.80

NOTE Where experimental data are lacking, values typeset in bold italics represent an estimate based on values obtained for other ages or related species.

^a The 0- to 3-, 3- to 6-, and 6- to 8-week intervals for nutrient requirements are based on chronology for which research data were available; however, these nutrient requirements are often implemented at younger age intervals or on a weight-of-feed consumed basis.

^b These are typical dietary energy concentrations, expressed in kcal AME/kg diet. Different energy values may be appropriate depending on local ingredient prices and availability.

^c Broiler chickens do not have a requirement for crude protein per se. There, however, should be sufficient crude protein to ensure an adequate nitrogen supply for synthesis of nonessential amino acids. Suggested requirements for crude protein are typical of those derived with corn-soybean meal diets, and levels can be reduced when synthetic amino acids are used.

^d The calcium requirement may be increased when diets contain high levels of phytate phosphorus (Nelson, 1984).

