

NUMBER 15

Nutrient Requirements of Goats:

Angora, Dairy, and Meat Goats in
Temperate and Tropical Countries



1981

Nutrient Requirements of Goats

TABLE 1

											Dry Matter per Animal			
Feed Energy					Crude Protein		Minerals		Vitamin A (1000	Vitamin D (IU)	1 kg = 2.0 Mcal ME		1 kg = 2.4 Mcal ME	
Body Wt (kg)	TDN (g)	DE (Mcal)	ME (Mcal)	NE (Mcal)	TP (g)	DP (g)	Ca (g)	P (g)	IU)	IU)	Total (kg)	% of kgBW	Total (kg)	% of kg BW
50	662	2.92	2.38	1.34	91	63	4	2.8	1.8	357	1.19	2.4	0.99	2.0
60	760	3.35	2.73	1.54	105	73	4	2.8	2.0	408	1.36	2.3	1.14	1.9
70	852	3.76	3.07	1.73	118	82	5	3.5	2.3	462	1.54	2.2	1.28	1.8
80	942	4.16	3.39	1.91	130	90	5	3.5	2.6	510	1.70	2.1	1.41	1.8
90	1030	4.54	3.70	2.09	142	99	6	4.2	2.8	555	1.85	2.1	1.54	1.7
100	1114	4.91	4.01	2.26	153	107	6	4.2	3.0	600	2.00	2.0	1.67	1.7
<i>Maintenance plus medium activity (=50% increment, semiarid rangeland, slightly hilly pastures, and early pregnancy)</i>														
10	239	1.05	0.86	0.48	33	23	1	0.7	0.6	129	0.43	4.3	0.36	3.6
20	400	1.77	1.44	0.81	55	38	2	1.4	1.1	216	0.72	3.6	0.60	3.0
30	543	2.38	1.95	1.10	74	52	3	2.1	1.5	294	0.98	3.3	0.81	2.7
40	672	2.97	2.42	1.36	93	64	4	2.8	1.8	363	1.21	3.0	1.01	2.5
50	795	3.51	2.86	1.62	110	76	4	2.8	2.1	429	1.43	2.9	1.19	2.4
60	912	4.02	3.28	1.84	126	87	5	3.5	2.5	492	1.64	2.7	1.37	2.3
70	1023	4.52	3.68	2.07	141	98	6	4.2	2.8	552	1.84	2.6	1.53	2.2
80	1131	4.98	4.06	2.30	156	108	6	4.2	3.0	609	2.03	2.5	1.69	2.1
90	1236	5.44	4.44	2.50	170	118	7	4.9	3.3	666	2.22	2.5	1.85	2.0
100	1336	5.90	4.82	2.72	184	128	7	4.9	3.6	723	2.41	2.4	2.01	2.0
<i>Maintenance plus high activity (=75% increment, arid rangeland, sparse vegetation, mountainous pastures, and early pregnancy)</i>														
10	278	1.22	1.00	0.56	38	26	2	1.4	0.8	150	0.50	5.0	0.42	4.2
20	467	2.06	1.68	0.94	64	45	2	1.4	1.3	252	0.84	4.2	0.70	3.5
30	634	2.78	2.28	1.28	87	60	3	2.1	1.7	342	1.14	3.8	0.95	3.2
40	784	3.46	2.82	1.59	108	75	4	2.8	2.1	423	1.41	3.5	1.18	3.0
50	928	4.10	3.34	1.89	128	89	5	3.5	2.5	501	1.67	3.3	1.39	2.7
60	1064	4.69	3.83	2.15	146	102	6	4.2	2.9	576	1.92	3.2	1.60	2.7
70	1194	5.27	4.29	2.42	165	114	6	4.2	3.2	642	2.14	3.0	1.79	2.6
80	1320	5.81	4.74	2.68	182	126	7	4.9	3.6	711	2.37	3.0	1.98	2.5
90	1442	6.35	5.18	2.92	198	138	8	5.6	3.9	777	2.59	2.9	2.16	2.4
100	1559	6.88	5.62	3.17	215	150	8	5.6	4.2	843	2.81	2.8	2.34	2.3
<i>Additional requirements for late pregnancy (for all goat sizes)</i>														
	TDN	DE	ME	NE	TP	CP	Ca	P	VitA	VitD	DM (total)			
	397	1.74	1.42	0.80	82	57	2	1.4	1.1	213	0.71	DM (total) 0.59		
<i>Additional requirements for growth—weight gain at 50 g per day (for all goat sizes)</i>														
	100	0.44	0.36	0.20	14	10	1	0.7	0.3	54	0.18	0.15		
<i>Additional requirements for growth—weight gain at 100 g per day (for all goat sizes)</i>														
	200	0.88	0.72	0.40	28	20	1	0.7	0.5	108	0.36	0.30		
<i>Additional requirements for growth—weight gain at 150 g per day (for all goat sizes)</i>														
	300	1.32	1.08	0.60	42	30	2	1.4	0.8	162	0.54	0.45		

Additional requirements for milk production per kg at different fat percentages (including requirements for nursing single, twin or triplet kids at the respective milk production level)

Fat %	TDN (g)	DE (Mcal)	ME (Mcal)	NE (Mcal)	TP (g)	CP (g)	Ca (g)	P (g)	Vit A 1000IU	Vit D IU
2.5	333	1.47	1.20	0.68	59	42	2	1.4	3.8	760
3.0	337	1.49	1.21	0.68	64	45	2	1.4	3.8	760
3.5	342	1.51	1.23	0.69	68	48	2	1.4	3.8	760
4.0	346	1.53	1.25	0.70	72	51	3	2.1	3.8	760
4.5	351	1.55	1.26	0.71	77	54	3	2.1	3.8	760
5.0	356	1.57	1.28	.0.72	82	57	3	2.1	3.8	760

