

TABLE 2 Nutrient Concentration in Diets for Sheep (expressed on 100 Percent Dry Matter Basis^a)

Body Weight		Weight Change/Day		Energy ^b			Example Diet Proportions		Crude Protein (%)	Calcium (%)	Phosphorus (%)	Vitamin A Activity (IU/kg)	Vitamin E Activity (IU/kg)
(kg)	(lb)	(g)	(lb)	TDN ^c (%)	DE (Mcal/kg)	ME (Mcal/kg)	Concentrate %	Forage %					
<i>Ewes^d</i>													
Maintenance													
70	154	10	0.02	55	2.4	2.0	0	100	9.4	0.20	0.20	2,742	15
Flushing—2 weeks prebreeding and first 3 weeks of breeding													
70	154	100	0.22	59	2.6	2.1	15	85	9.1	0.32	0.18	1,828	15
Nonlactating—First 15 weeks gestation													
70	154	30	0.07	55	2.4	2.0	0	100	9.3	0.25	0.20	2,350	15
Last 4 weeks gestation (130-150% lambing rate expected) or last 4-6 weeks lactation suckling singles ^e													
70	154	180 (0.45)	0.40 (0.10)	59	2.6	2.1	15	85	10.7	0.35	0.23	3,306	15
Last 4 weeks gestation (180-225% lambing rate expected)													
70	154	225	0.50	65	2.9	2.3	35	65	11.3	0.40	0.24	3,132	15
First 6-8 weeks lactation suckling singles or last 4-6 weeks lactation suckling twins ^e													
70	154	-25(90)	-0.06 (0.20)	65	2.9	2.4	35	65	13.4	0.32	0.26	2,380	15
First 6-8 weeks lactation suckling twins													
70	154	-60	-0.13	65	2.9	2.4	35	65	15.0	0.39	0.29	2,500	15
<i>Ewe Lambs</i>													
Nonlactating—First 15 weeks gestation													
55	121	135	0.30	59	2.6	2.1	15	85	10.6	0.35	0.22	1,668	15
Last 4 weeks gestation (100-120% lambing rate expected)													
55	121	160	0.35	63	2.8	2.3	30	70	11.8	0.39	0.22	2,833	15
Last 4 weeks gestation (130-175% lambing rate expected)													
55	121	225	0.50	66	2.9	2.4	40	60	12.8	0.48	0.25	2,833	15
First 6-8 weeks lactation suckling singles (wean by 8 weeks)													
55	121	-50	0.22	66	2.9	2.4	40	60	13.1	0.30	0.22	2,125	15
First 6-8 weeks lactation suckling twins (wean by 8 weeks)													
55	121	-100	-0.22	69	3.0	2.5	50	50	13.7	0.37	0.26	2,292	15
<i>Replacement Ewe Lambs^f</i>													
30	66	227	0.50	65	2.9	2.4	35	65	12.8	0.53	0.22	1,175	15
40	88	182	0.40	65	2.9	2.4	35	65	10.2	0.42	0.18	1,343	15
50-70	110-154	115	0.25	59	2.6	2.1	15	85	9.1	0.31	0.17	1,567	15
<i>Replacement Ram Lambs^f</i>													
40	88	330	0.73	63	2.8	2.3	30	70	13.5	0.43	0.21	1,175	15
60	132	320	0.70	63	2.8	2.3	30	70	11.0	0.35	0.18	1,659	15
80-100	176-220	270	0.60	63	2.8	2.3	30	70	9.6	0.30	0.16	1,979	15
<i>Lambs Finishing—4 to 7 months old^g</i>													
30	66	235	0.65	72	3.2	2.5	60	40	14.7	0.51	0.24	1,085	15
40	88	275	0.60	76	3.3	2.7	75	25	11.6	0.42	0.21	1,175	15
50	110	205	0.45	77	3.4	2.8	80	20	10.0	0.35	0.19	1,469	15
<i>Early Weaned Lambs—Moderate and rapid growth potentials^h</i>													
10	22	250	0.55	80	3.5	2.9	90	10	26.2	0.82	0.38	940	20
20	44	300	0.66	78	3.4	2.8	85	15	16.9	0.54	0.24	940	20
30	66	325	0.72	78	3.3	2.7	85	15	15.1	0.51	0.24	1,085	15
40-60	88-132	400	0.88	78	3.3	2.7	85	15	14.5	0.55	0.28	1,253	15

^aValues in Table 2 are calculated from daily requirements in Table 1 divided by DM intake. The exception, vitamin E daily requirements /head, are calculated from vitamin E/kg diet × DM intake.

^bOne kilogram TDN = 4.4 Mcal DE (digestible energy); ME (metabolizable energy) = 82% of DE. Because of rounding errors, values in Table 1 and Table 2 may differ.

^cTDN calculated on following basis: hay DM, 55% TDN and on as-fed basis 50% TDN; grain DM, 83% TDN and on as-fed basis 75% TDN.

^dValues are for ewes in moderate condition. Fat ewes should be fed according to the next lower weight category and thin ewes at the next higher weight category. Once desired or moderate weight condition is attained, use that weight category through all production stages.

^eValues in parentheses are for ewes suckling lambs the last 4-6 weeks of lactation.

^fLambs intended for breeding; thus, maximum weight gains and finish are of secondary importance.

^gMaximum weight gains expected.

TABLE 4 NE_{preg} (NE_y) Requirements of Ewes Carrying Different Numbers of Fetuses at Various Stages of Gestation

Number of Fetuses Being Carried	Stage of Gestation (days) ^a					
	100	% ^b	120	% ^b	140	% ^b
	<i>NE_{preg} Required (kcal/day)</i>					
1	70	100	145	100	260	100
2	125	178	265	183	440	169
3	170	243	345	238	570	219

^aFor gravid uterus (plus contents) and mammary gland development only.

^bAs a percentage of a single fetus's requirement.

TABLE 6 Macromineral Requirements of Sheep (percentage of diet dry matter)^a

Nutrient	Requirement
Sodium	0.09-0.18
Chlorine	—
Calcium	0.20-0.82
Phosphorus	0.16-0.38
Magnesium	0.12-0.18
Potassium	0.50-0.80
Sulfur	0.14-0.26

^aValues are estimates based on experimental data.

TABLE 7 Micromineral Requirements of Sheep and Maximum Tolerable Levels (ppm, mg/kg of diet dry matter)^a

Nutrient	Requirement	Maximum Tolerable Level ^b
Iodine	0.10-0.80 ^c	50
Iron	30-50	500
Copper	7-11 ^d	25 ^e
Molybdenum	0.5	10 ^e
Cobalt	0.1-0.2	10
Manganese	20-40	1,000
Zinc	20-33	750
Selenium	0.1-0.2	2
Fluorine	—	60-150

^aValues are estimates based on experimental data.

^bNRC (1980).

^cHigh level for pregnancy and lactation in diets not containing goitrogens; should be increased if diets contain goitrogens.

^dRequirement when dietary Mo concentrations are <1 mg/kg DM. See text for requirements under other circumstances.

^eLower levels may be toxic under some circumstances. See text.