

TABLE A.

Monthly Cuts. 1935-36 grow

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	6.1.36	.10	.43	.28	.72	.77	1.13	8.0
	4.2.36	.14	.40	.27	.87	.61	.94	10.2
	3.3.36	.13	.28	.20	.67	.46	.81	7.2
	6.4.36	.14	.38	.25	.79	.41	.73	7.8
<i>Setaria lindenberiana</i>	6.1.36	.14	.46	.45	2.01	.038	1.10	12.0
	4.2.36	.18	.38	.40	2.67	.059	1.02	12.7
	3.3.36	.16	.33	.36	2.38	.040	.91	9.0
	6.4.36	.16	.38	.41	1.94	.048	.80	10.0
<i>Cenchrus ciliaris</i>	6.1.36	.15	.39	.45	2.87	.072	1.06	10.6
	4.2.36	.17	.38	.45	2.84	.12	.95	11.9
	3.3.36	.18	.29	.41	2.38	.056	.79	10.7
	6.4.36	.19	.31	.39	1.71	.061	.55	11.4
<i>Digitaria pentzii</i> , Pretoria small..	6.1.36	.11	.52	.45	1.91	.056	.95	8.0
	4.2.36	.15	.53	.49	2.38	.049	.91	10.2
	3.3.36	.16	.46	.41	2.05	.049	.80	8.6
	6.4.36	.15	.54	.44	1.67	.049	.66	9.5
<i>Panicum, maximum</i>	6.1.36	.13	.52	.49	1.41	.68	1.09	11.4
	4.2.36	.18	.40	.49	1.76	.87	1.17	10.5
	3.3.36	.16	.33	.41	1.33	.55	.91	8.6
	6.4.36	.20	.40	.46	1.14	.55	.74	10.0

TABLE B

2-Monthly Cuts. 1935

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	4.2.36	.12	.40	.23	.81	.58	.94	7.3
	6.4.36	.11	.31	.20	.61	.40	.73	5.5
<i>Setaria lindenberiana</i>	4.2.36	.13	.45	.42	1.73	.048	.78	8.3
	6.4.36	.12	.43	.39	1.43	.038	.76	6.8
<i>Cenchrus ciliaris</i>	4.2.36	.13	.36	.43	2.68	.087	.82	9.3
	6.4.36	.15	.28	.36	1.61	.044	.50	9.2
<i>Digitaria pentzii</i> , Pretoria small..	4.2.36	.13	.51	.46	2.24	.041	.89	8.2
	6.4.36	.12	.53	.45	1.48	.038	.68	7.3
<i>Panicum, maximum</i>	4.2.36	.12	.44	.46	1.35	.61	1.04	8.1
	6.4.36	.12	.36	.41	.92	.49	.71	5.9



XII. APPENDIX.

TABLE A.

ts. 1935-36 growing season.

Crude Fibre	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
30.4	2.83	10.42	48.35	4.61	41.1	Short, pre-flowering, wilted and scorched in parts by sun. Short, a few flowerheads appearing.
29.1	2.68	10.46	47.56	4.55	27.2	
35.4	1.92	9.64	45.84	3.57	26.7	
31.8	2.76	11.54	46.10	3.85	27.8	
32.7	3.85	10.76	40.69	5.24	46.2	Some with flowerheads, wilted and scorched in parts. Some with flowerheads. Pre-flowering. Pre-flowering.
34.6	3.30	11.95	37.45	5.94	27.6	
38.3	2.60	12.34	37.76	5.30	25.1	
37.2	3.12	11.84	38.84	4.94	26.3	
29.2	3.13	15.18	41.89	6.23	33.4	Short, some with flowerheads. Short, pre-flowering. Short, few flowerheads appearing. Short, preflowering.
29.1	2.99	16.22	39.79	6.36	24.0	
29.9	2.50	15.50	41.40	5.45	24.3	
29.5	2.91	15.10	41.09	4.72	28.7	
32.0	3.46	10.18	46.36	5.12	54.8	Short, pre-flowering, wilted. Short, pre-flowering. Short, few flowerheads appearing. Short, pre-flowering.
32.6	3.34	10.76	43.10	5.86	30.0	
36.3	2.75	10.60	41.75	5.06	26.6	
33.8	3.15	11.48	42.07	4.81	31.1	
28.0	2.87	12.65	45.08	5.48	40.2	Short, few flowerheads present, wilted. Flowerheads appearing. Flowering. Short, few flowerheads appearing.
30.9	1.97	13.47	43.16	6.10	26.2	
32.3	2.00	13.85	43.25	4.72	23.4	
30.9	2.37	14.93	41.80	4.88	26.2	

E B.

35-36 growing season.

Crude Fibre.	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
31.7	2.37	10.54	48.09	4.22	31.8	Flowering. Long, with flowerheads.
35.4	2.15	10.03	46.92	3.25	29.9	
36.2	2.95	11.20	41.35	4.71	35.0	Long, flowering. Long, no flowerheads.
38.6	3.07	12.30	39.23	4.27	31.4	
33.3	2.23	15.45	39.72	6.03	28.4	Flowering. Few flowerheads present.
33.4	2.54	15.05	39.81	4.35	31.5	
33.4	2.71	10.37	45.32	5.65	32.5	Short, few flowerheads present. Few flowerheads present.
35.2	3.05	11.60	42.85	4.58	29.2	
31.7	2.22	13.48	44.50	5.19	26.5	Flowering. Long, with flowerheads.
35.8	2.30	13.76	42.24	4.17	28.8	

TABLE C.
3-Monthly Cuts. 1935-36 gro

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	3.3.36	.094	.32	.20	.66	.40	.72	4.8
	6.4.36	.13	.36	.24	.70	.38	.72	7.9
<i>Setaria lindenberiana</i>	3.3.36	.11	.41	.36	1.36	.044	.60	5.9
	6.4.36	.17	.40	.40	1.97	.041	.82	10.5
<i>Cenchrus ciliaris</i>	3.3.36	.12	.30	.40	1.89	.059	.67	7.1
	6.4.36	.19	.29	.35	1.76	.038	.54	11.3
<i>Digitaria pentzii</i> , Pretoria small..	3.3.36	.12	.46	.39	1.94	.047	.78	6.7
	6.4.36	.16	.51	.42	1.84	.048	.76	9.0
<i>Panicum, maximum</i>	3.3.36	.089	.35	.34	1.17	.42	.80	5.5
	6.4.36	.17	.43	.43	1.36	.43	.70	10.2

TABLE D.
Final Cut (4 Months). 1935-36

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	6.4.36	.074	.36	.23	.51	.32	.56	4.4
<i>Setaria linderberiana</i>	6.4.36	.088	.39	.32	1.16	.020	.51	5.2
<i>Cenchrus ciliaris</i>	6.4.36	.097	.26	.32	1.39	.020	.45	7.0
<i>Digitaria pentzii</i> , Pretoria small..	6.4.36	.092	.45	.39	1.38	.022	.64	5.7
<i>Panicum, maximum</i>	6.4.36	.091	.34	.36	.87	.44	.67	4.5

TABLE C.

Cuts. 1935-36 growing season.

Crude Fibre	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
35.2 31.5	2.02 3.07	9.28 11.06	48.70 46.47	3.25 3.58	31.5 27.8	Long, with seedheads. Short, few flowerheads appearing.
38.3 35.8	2.55 3.47	11.31 11.95	41.94 38.28	3.82 4.85	33.6 26.3	Long, seeds fallen out. Pre-flowering.
35.4 31.9	2.09 2.28	14.53 14.65	40.88 39.87	4.64 4.55	29.7 28.7	Seeds falling out. Short, pre-flowering.
37.2 34.8	2.66 3.23	10.74 11.25	42.70 41.72	4.85 4.91	28.1 31.1	Some with long seedheads. Short, pre-flowering.
37.2 29.6	1.71 2.14	12.35 15.14	43.24 42.92	3.98 4.88	29.0 26.2	Long, with seedheads. Short, few flowerheads appearing.

TABLE D.

1935-36 growing season.

Crude Fibre.	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
33.6	2.09	9.86	50.05	2.95	34.1	Long, seeds falling out, inflorescences and some leaves browning.
39.3	2.62	11.25	41.63	3.52	37.6	Long, seeds fallen out, inflorescences and some leaves browning.
35.5	2.03	13.66	41.81	3.82	35.8	Long, seeds falling out, inflorescences and some leaves browning.
37.9	2.71	10.53	43.16	4.04	33.0	Long, culms with inflorescences and some leaves browning.
38.7	1.57	12.56	42.67	3.80	31.1	Long, most seeds fallen out, inflorescences and some leaves browning.

INFLUENCE OF CUTTING ON YIELD, ETC., OF GRASS SPECIES.

TABLE E.

Monthly Cuts. 1936-37 growing

Species.	Date. of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	15.12.36	·11	·42	·24	·69	·36	·67	6·6
	14.1.37	·12	·39	·37	·73	·38	·61	5·5
	17.2.37	·12	·35	·24	1·00	·43	·75	6·5
	16.4.37	·11	·57	·32	·66	·32	·65	7·1
<i>Setaria lindenbergiana</i>	15.12.36	·098	·52	·44	1·28	·097	·59	7·3
	14.1.37	·18	·37	·37	1·81	·40	·64	11·6
	17.2.37	·15	·39	·37	1·70	·32	·62	8·7
	16.4.37	·17	·48	·44	1·44	·21	·58	10·7
<i>Cenchrus ciliaris</i>	15.12.36	·15	·37	·43	1·81	·36	·62	10·8
	14.1.37	·14	·34	·37	1·82	·35	·63	10·3
	17.2.37	·12	·29	·32	1·73	·33	·52	8·3
	16.4.37	·11	·44	·46	1·16	·077	·47	7·9
<i>Digitaria pentzii</i> , Pretoria small..	15.12.36	·12	·55	·44	1·75	·39	·75	8·2
	14.1.37	·15	·46	·43	1·77	·35	·65	9·0
	17.2.37	·13	·40	·35	1·71	·31	·62	8·0
	16.4.37	·12	·63	·56	1·07	·043	·51	7·8
<i>Panicum, maximum</i>	15.12.36	·15	·45	·44	1·08	·60	·77	7·9
	14.1.37	·20	·37	·38	1·22	·60	·78	9·4
	17.2.37	·17	·29	·34	1·23	·44	·72	7·5
	16.4.37	·17	·53	·53	·83	·43	·51	8·5



TABLE E.

1936-37 *growing season.*

Crude Fibre	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
29.7	2.33	10.60	50.77	3.40	34.0	Short, pre-flowering.
36.1	1.83	11.50	45.07	3.64	31.5	Short, few flowerheads appearing.
33.6	2.20	9.60	48.10	3.92	30.9	Short, few flowerheads appearing.
30.5	2.72	12.45	47.23	4.02	33.3	Short, few flowerheads appearing.
35.5	3.11	12.55	41.54	4.23	38.8	No flowerheads present.
35.5	3.56	10.88	38.46	4.83	28.7	Pre-flowering.
37.2	3.12	9.66	41.32	4.63	28.8	Pre-flowering.
34.3	3.43	11.04	40.53	4.88	33.4	Short, pre-flowering.
28.2	3.05	15.30	42.65	4.67	30.5	Short, pre-flowering.
30.6	2.87	14.15	43.08	4.69	28.5	Short, pre-flowering.
31.9	2.56	12.35	44.89	4.30	30.6	Short, pre-flowering.
29.9	2.68	18.00	41.52	4.66	35.8	Short, pre-flowering.
34.4	3.17	10.95	43.28	5.05	31.5	Short, pre-flowering.
33.7	3.61	10.30	43.39	4.66	29.9	Short, pre-flowering.
34.5	2.89	9.50	45.11	4.30	28.3	Short, pre-flowering.
33.0	3.52	12.48	43.20	4.45	38.4	Short, pre-flowering.
29.8	2.41	13.30	46.59	4.70	30.0	Flowering.
29.6	2.39	12.47	46.14	4.66	27.6	Short, few flowerheads appearing.
34.7	2.20	10.53	45.07	4.38	27.7	Short, few flowerheads appearing.
28.8	2.52	14.35	45.83	4.63	33.2	Short, few flowerheads appearing.

INFLUENCE OF CUTTING ON YIELD, ETC., OF GRASS SPECIES.

TABLE F.
2-Monthly Cuts. 1936-37 gr

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	14.12.36	.11	.40	.23	.82	.31	.65	6.7
	16.2.37	.098	.28	.19	.79	.33	.61	5.1
	16.4.37	.12	.48	.28	.64	.32	.70	7.7
<i>Setaria lindenberiana</i>	14.12.36	.12	.53	.43	1.25	.044	.56	7.2
	16.2.37	.13	.46	.44	1.14	.061	.57	6.6
	16.4.37	.13	.52	.55	1.31	.17	.65	8.9
<i>Cenchrus ciliaris</i>	14.12.36	.14	.33	.38	1.86	.085	.62	10.1
	16.2.37	.11	.26	.31	1.62	.069	.52	7.8
	16.4.37	.10	.45	.45	1.22	.12	.47	7.9
<i>Digitaria pentzii</i> , Pretoria small..	14.12.36	.12	.60	.44	1.51	.064	.68	7.9
	16.2.37	.11	.40	.34	1.53	.070	.61	6.6
	16.4.37	.11	.64	.51	1.01	.051	.49	7.3
<i>Panicum, maximum</i>	14.12.36	.16	.42	.44	1.06	.52	.68	6.9
	16.2.37	.13	.30	.33	1.01	.38	.64	5.8
	16.4.37	.18	.55	.48	.82	.53	.45	9.0

TABLE G.
3-Monthly Cuts. 1936-37 gr

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	13.1.37	.088	.38	.22	.66	.32	.63	5.3
	15.4.37	.087	.46	.27	.44	.29	.64	5.1
<i>Setaria lindenberiana</i>	13.1.37	.097	.48	.44	1.03	.035	.46	6.0
	15.4.37	.082	.51	.40	1.06	.046	.46	5.7
<i>Cenchrus ciliaris</i>	13.1.37	.12	.35	.41	1.71	.057	.70	9.2
	15.4.37	.096	.42	.41	1.27	.063	.42	7.3
<i>Digitaria pentzii</i> , Pretoria small..	13.1.37	.12	.52	.42	1.58	.044	.65	7.2
	15.4.37	.091	.61	.43	.90	.040	.43	5.7
<i>Panicum, maximum</i>	13.1.37	.081	.34	.39	1.11	.23	.81	6.3
	15.4.37	.22	.47	.43	.94	.50	.54	6.0



TABLE F.

ts. 1936-37 growing season.

Crude Fibre.	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
30.3	2.83	10.90	49.27	3.29	35.3	Short, few flowerheads appearing.
34.3	2.19	8.46	49.95	2.99	32.2	Long, with flowerheads.
30.6	2.88	12.20	46.62	3.48	33.7	Short, few flowerheads appearing.
34.8	3.33	12.60	42.07	4.00	37.9	Few flowerheads appearing.
36.7	3.34	10.42	42.94	3.81	31.5	Long, no flowerheads present.
34.1	3.70	11.75	41.55	4.67	33.8	Short, pre-flowering.
30.8	2.65	14.90	41.55	4.63	31.2	Short, pre-flowering.
34.3	2.59	11.95	43.36	3.81	29.3	Few flowerheads present.
29.7	2.98	17.60	41.82	4.60	36.2	Short, pre-flowering.
34.5	3.15	11.20	43.25	4.46	32.9	Short, pre-flowering.
37.0	3.12	12.00	41.28	3.89	30.3	Short, few flowerheads present.
33.0	3.55	12.40	43.75	4.10	39.4	Short, pre-flowering.
31.3	2.17	13.60	46.03	4.37	30.9	Flowering.
35.6	2.41	11.00	45.19	3.61	29.4	Long, with flowerheads.
29.3	2.46	15.75	43.49	4.48	33.6	Short, few flowerheads present.

TABLE G.

s. 1936-37 growing season.

Crude Fibre	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
31.4	2.46	9.40	51.44	3.08	35.4	Long, flowering.
32.9	2.46	10.70	48.84	3.12	35.6	Seeds fallen out, inflorescences browning.
37.6	3.08	11.45	41.87	3.87	36.8	Long, few seedheads, seeds falling out.
37.0	3.27	11.30	42.73	3.92	42.5	No seedheads, some leaves browning.
31.5	3.05	14.60	41.65	4.71	30.6	Few seedheads present.
31.0	2.56	15.85	43.29	4.18	41.0	Short, no seedheads, some leaves browning.
35.0	3.68	10.85	43.27	4.64	30.9	No seedheads present.
36.2	3.53	11.50	43.07	3.96	43.6	Short, no seedheads.
33.8	2.22	11.30	46.38	3.95	31.4	Long, flowering and shedding seed.
33.1	2.40	14.10	44.40	4.62	35.0	Some seedheads, most seeds fallen out.

TABLE H.
4-Monthly Cuts. 1936-37 gro

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	17.2.37	.077	.37	.23	.64	.27	.55	4.3
	14.4.37	.12	.51	.34	.59	.32	.73	7.8
<i>Setaria lindenberiana</i>	17.2.37	.091	.43	.36	1.05	.036	.46	4.9
	14.4.37	.16	.55	.53	1.29	.10	.55	9.4
<i>Cenchrus ciliaris</i>	17.2.37	.093	.25	.29	1.57	.059	.52	6.4
	14.4.37	.11	.39	.43	1.38	.17	.50	7.9
<i>Digitaria pentzii</i> , Pretoria small..	17.2.37	.098	.46	.36	1.69	.061	.63	5.8
	14.4.37	.11	.61	.46	1.05	.05	.54	7.5
<i>Panicum, maximum</i>	17.2.37	.12	.38	.30	.82	.40	.65	6.0
	14.4.37	.17	.53	.44	.92	.55	.49	9.2

TABLE I.
6-Monthly Cuts. 1936-37 gro

Species.	Date of Cutting.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.
<i>Chloris gayana</i>	12.4.37	.065	.44	.31	.43	.23	.49	3.9
<i>Setaria lindenberiana</i>	12.4.37	.078	.55	.37	.84	.057	.38	4.8
<i>Cenchrus ciliaris</i>	12.4.37	.066	.36	.36	.97	.063	.46	5.3
<i>Digitaria pentzii</i> , Pretoria small..	12.4.37	.077	.54	.43	.80	.032	.40	5.0
<i>Panicum, maximum</i>	12.4.37	.12	.32	.34	.93	.33	.54	4.4

TABLE H.

Cuts. 1936-37 growing season.

Crude Fibre.	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
32.7	3.14	10.00	50.86	3.09	36.0	Long, seeds falling out inflorescences and some leaves browning.
28.1	2.95	13.25	47.90	3.59	33.6	Short, preflowering.
39.4	2.81	11.15	41.74	3.67	38.9	Long, no seedheads present, some leaves browning.
33.4	3.95	11.80	41.45	4.70	33.8	Short, pre-flowering.
36.0	2.38	12.15	43.07	3.87	33.7	Seeds falling out, some leaves and inflorescences browning.
30.8	2.56	16.05	42.69	4.33	36.2	Short, pre-flowering.
37.3	3.26	10.40	43.24	4.29	32.4	Few seedheads present, some leaves and inflorescences browning.
34.1	3.48	12.50	42.42	4.19	39.4	Short, pre-flowering.
34.7	2.14	10.55	46.61	3.85	33.8	Long, most seeds fallen out, inflorescences and some leaves browning.
29.6	3.09	14.80	43.31	4.40	33.6	Short, few flowerheads appearing.

TABLE I.

Cuts. 1936-37 growing season.

Crude Fibre	Ether Soluble Extract.	Ash.	N-free Extractives.	HCl. Soluble Ash.	Dry Matter as Cut.	Description of Grasses as Cut.
34.3	2.64	11.25	47.91	3.06	41.0	Long, seeds fallen out, inflorescences and some leaves browning.
35.3	3.62	13.10	43.18	3.82	51.7	Long, no seedheads present, some leaves browning.
36.6	2.21	14.40	41.49	3.53	44.5	Long, seeds fallen out, inflorescences and some leaves browning.
38.5	2.93	11.20	42.37	3.72	47.7	A few long brown inflorescences present, and some browning.
39.2	1.78	11.05	43.57	3.64	41.9	Long, seeds fallen out, inflorescences and some leaves browning.

TABLE J.

Showing amounts of nutrients eaten, dig

		SHEEP 4.						Dry Matter (gm.).
		Dry Matter (gm.).	Organic Matter (gm.).	Crude Protein (gm.).	Ether Extract. (gm.).	N-free Extract. (gm.).	Crude Fibre. (gm.).	
Period 1	Consumed.....	618.4	553.7	33.90	12.25	268.5	238.8	637.0
	Voided.....	332.3	275.8	19.80	9.06	146.2	100.6	352.6
	Digested.....	286.1	277.9	14.10	3.19	122.3	138.2	284.4
	Percentage Digested.....	46.3	50.2	41.6	26.0	45.6	57.9	44.7
Period 2	Consumed.....	643.5	573.5	44.33	14.22	274.6	240.0	646.8
	Voided.....	308.8	253.7	21.32	9.95	131.6	90.7	318.9
	Digested.....	334.7	319.8	23.01	4.27	143.0	149.3	327.9
	Percentage Digested.....	52.0	55.8	51.9	30.0	52.1	62.2	50.7
Period 3	Consumed.....	646.8	573.0	57.20	15.20	274.3	226.4	646.8
	Voided.....	290.0	234.0	22.98	10.35	121.5	79.2	293.0
	Digested.....	356.8	339.0	34.22	4.85	152.8	147.2	353.8
	Percentage Digested.....	55.2	59.2	59.9	31.9	55.7	65.0	54.6
Period 4	Consumed.....	637.7	567.6	66.45	17.96	266.6	216.2	637.7
	Voided.....	249.9	199.2	24.03	10.60	102.2	62.5	254.9
	Digested.....	387.8	368.4	42.42	7.36	164.4	153.7	382.8
	Percentage Digested.....	60.8	65.0	63.9	41.0	61.6	71.0	60.0
Period 5	Consumed.....	630.2	554.0	27.54	13.80	282.6	230.0	641.2
	Voided.....	339.8	271.4	18.42	9.65	144.0	99.2	363.8
	Digested.....	290.4	282.6	9.12	4.15	138.6	130.8	277.4
	Percentage Digested.....	46.1	51.0	33.1	30.1	49.0	56.9	43.3
Period 6	Consumed.....	635.0	566.3	31.68	15.94	285.0	233.8	644.0
	Voided.....	318.8	262.2	18.76	10.36	137.5	95.6	342.8
	Digested.....	316.2	304.1	12.92	5.58	147.5	138.2	301.2
	Percentage Digested.....	49.8	53.7	40.8	35.0	51.7	59.1	46.8
Period 7	Consumed.....	641.9	565.7	40.28	19.26	288.0	218.2	641.9
	Voided.....	297.7	233.8	19.87	11.85	121.8	80.1	300.8
	Digested.....	344.2	331.9	20.41	7.41	166.2	138.1	341.1
	Percentage Digested.....	53.6	58.7	50.6	38.5	57.7	63.2	53.2
Period 8	Consumed.....	648.2	574.5	46.59	16.33	291.2	220.4	648.2
	Voided.....	273.0	212.6	20.65	10.73	110.2	71.0	276.1
	Digested.....	375.2	361.9	25.94	5.60	181.0	149.4	372.1
	Percentage Digested.....	57.9	63.0	55.7	34.3	62.1	67.7	57.4
Period 9	Consumed.....	634.9	561.4	53.33	16.00	275.0	217.1	634.9
	Voided.....	246.6	187.6	21.21	9.47	98.6	58.2	245.4
	Digested.....	388.3	373.8	32.12	6.53	176.4	158.9	389.5
	Percentage Digested.....	61.1	66.6	60.2	40.8	64.1	73.1	61.4



TABLE J.

nutrients eaten, digested and voided.

SHEEP 5.					SHEEP 6.					
Organic Matter (gm.).	Crude Protein (gm.).	Ether Extract (gm.).	N-free Extract (gm.).	Crude Fibre (gm.).	Dry Matter (gm.).	Organic Matter (gm.).	Crude Protein (gm.).	Ether Extract (gm.).	N-free Extract (gm.).	Crude Fibre (gm.).
569.5	35.04	12.62	276.5	246.0	637.0	569.5	35.04	12.62	276.5	246.0
293.0	19.65	9.34	153.0	110.7	352.2	292.2	21.54	9.48	152.8	108.2
276.5	15.39	3.28	123.5	135.3	284.8	277.3	13.50	3.14	123.7	137.8
48.6	43.9	26.0	44.6	55.0	44.7	48.7	38.5	24.9	44.7	56.0
576.3	44.63	14.30	276.3	241.5	646.8	576.3	44.63	14.30	276.3	241.5
263.2	21.37	9.73	136.1	96.0	314.0	259.2	22.28	9.73	133.3	93.5
313.1	23.26	4.57	140.2	145.5	332.8	317.1	22.35	4.57	143.0	148.0
54.3	52.1	31.9	50.8	60.2	51.4	55.0	50.0	31.9	51.8	61.3
573.0	57.20	15.20	274.3	226.4	646.8	573.0	57.20	15.20	274.3	226.4
235.2	22.11	10.58	124.1	78.2	301.5	244.2	22.98	10.74	125.1	85.4
337.8	35.09	4.62	150.2	148.2	345.3	328.8	34.22	4.46	149.2	141.0
59.0	61.3	30.4	54.8	65.4	53.4	57.4	59.9	29.4	54.4	62.2
567.6	66.45	17.96	266.6	216.2	637.7	567.6	66.45	17.96	266.6	216.2
203.0	24.20	10.30	106.2	62.2	257.7	206.2	24.62	10.68	106.2	64.6
364.6	42.25	7.66	160.4	154.0	380.0	361.4	41.83	7.28	160.4	151.6
64.2	63.6	42.7	60.2	71.2	59.6	63.7	62.9	40.5	60.2	70.1
563.6	27.98	14.04	287.5	234.0	641.2	563.6	27.98	14.04	287.5	234.0
293.6	18.58	9.42	155.4	110.2	370.6	299.1	19.45	9.86	159.6	110.1
270.0	9.40	4.62	132.1	123.8	270.6	264.5	8.53	4.18	127.9	123.9
48.0	33.6	32.9	46.0	52.9	42.2	47.0	30.5	29.8	44.5	52.9
574.3	32.16	16.16	289.0	237.0	644.0	574.3	32.16	16.16	289.0	237.0
282.8	19.38	10.48	148.8	104.2	330.9	271.9	19.83	10.52	139.0	102.6
291.5	12.78	5.68	140.2	132.8	313.1	302.4	12.33	5.64	150.0	134.4
50.7	39.7	35.1	48.5	56.0	48.6	52.6	38.3	34.9	51.9	56.7
565.7	40.28	19.26	288.0	218.2	641.9	565.7	40.28	19.26	288.0	218.2
236.8	19.96	11.30	121.8	83.6	301.7	236.6	20.01	11.85	122.8	81.7
328.9	20.32	7.96	166.2	134.6	340.2	329.1	20.27	7.41	165.2	136.5
58.2	50.4	41.3	57.7	61.6	53.0	58.2	50.2	38.5	57.4	62.5
574.5	46.59	16.33	291.2	220.4	648.2	574.5	46.59	16.33	291.2	220.4
215.5	20.67	10.17	112.6	72.0	283.5	222.6	21.48	10.69	113.8	76.5
359.0	25.92	6.16	178.6	148.4	364.7	351.9	25.11	5.64	177.4	143.9
62.5	55.6	37.7	61.3	67.2	56.2	61.2	53.9	34.5	60.8	65.2
561.4	53.33	16.00	275.0	217.1	634.9	561.4	53.33	16.00	275.0	217.1
185.9	20.50	9.67	99.3	56.4	263.5	202.1	21.88	9.96	102.5	67.7
375.5	32.83	6.33	175.7	160.7	371.4	359.3	31.45	6.04	172.5	149.4
66.9	61.6	39.6	63.9	73.9	58.5	64.0	59.0	37.7	62.7	68.8

TABLE K.

Showing composition of dry matter of faeces collected during digestion periods 1-9.

Period.	Sheep No.	Percentage Crude Protein.	Percentage Crude Fibre.	Percentage Ether Extract.	Percentage Ash.	Percentage N-free Extract.	Percentage P.	Percentage Ca.
1.....	4	6.0	30.3	2.73	16.98	44.00	0.172	0.742
	5	5.6	31.4	2.65	16.95	43.40	0.173	0.754
	6	6.1	30.7	2.69	17.10	43.40	0.186	0.760
2.....	4	6.9	29.4	3.22	17.87	42.5	0.228	0.834
	5	6.7	30.1	3.05	17.48	42.7	0.211	0.822
	6	7.1	29.8	3.10	17.45	42.5	0.225	0.809
3.....	4	7.9	27.3	3.57	19.32	41.9	0.237	0.976
	5	7.5	26.7	3.61	19.75	42.4	0.235	0.968
	6	7.6	28.3	3.56	19.00	41.5	0.235	0.936
4.....	4	9.6	25.0	4.24	20.30	40.9	0.281	0.972
	5	9.5	24.4	4.04	20.40	41.7	0.282	1.015
	6	9.6	25.1	4.15	19.96	41.2	0.283	0.976
5.....	4	5.42	29.2	2.84	20.15	42.39	0.160	0.835
	5	5.11	30.3	2.59	19.30	42.70	0.159	0.826
	6	5.25	29.7	2.66	19.30	43.09	0.155	0.818
6.....	4	5.88	30.0	3.25	17.76	43.11	0.188	0.805
	5	5.65	30.4	3.06	17.50	43.39	0.191	0.812
	6	6.00	31.0	3.18	17.83	42.00	0.193	0.818
7.....	4	6.68	26.9	3.98	21.50	40.94	0.217	1.023
	5	6.64	27.8	3.75	21.30	40.51	0.220	1.018
	6	6.64	27.1	3.93	21.60	40.73	0.219	1.005
8.....	4	7.56	26.0	3.93	22.12	40.39	0.237	1.060
	5	7.48	26.1	3.68	21.95	40.79	0.235	1.046
	6	7.58	27.0	3.77	21.50	40.15	0.235	1.017
9.....	4	8.60	23.6	3.84	23.95	40.00	0.265	1.115
	5	8.36	23.0	3.94	24.26	40.44	0.267	1.130
	6	8.30	25.7	3.78	23.32	38.90	0.263	1.075

INFLUENCE OF CUTTING ON YIELD, ETC., OF GRASS SPECIES.

TABLE L.

Showing Nitrogen balances in sheep during digestion periods 1-9.

Period.	Sheep No.	N. consumed per day (gm.).	N. excreted per day.			Mean daily N- balances (gm.).
			Faeces (gm.).	Urine (gm.).	Total (gm.).	
1.....	4	5.42	3.17	2.06	5.23	+ 0.19
	5	5.61	3.14	2.06	5.20	+ 0.41
	6	5.61	3.44	2.28	5.72	- 0.11
2.....	4	7.09	3.41	2.83	6.24	+ 0.85
	5	7.14	3.42	3.02	6.44	+ 0.70
	6	7.14	3.56	2.83	6.39	+ 0.75
3.....	4	9.15	3.67	2.95	6.62	+ 2.53
	5	9.15	3.54	3.20	6.74	+ 2.41
	6	9.15	3.67	3.20	6.87	+ 2.28
4.....	4	10.63	3.84	4.84	8.68	+ 1.95
	5	10.63	3.87	4.94	8.81	+ 1.82
	6	10.63	3.94	5.05	8.99	+ 1.64
5.....	4	4.41	2.95	1.78	4.73	- 0.32
	5	4.48	2.97	1.78	4.75	- 0.27
	6	4.48	3.11	1.69	4.80	- 0.32
6.....	4	5.07	3.00	2.02	5.02	+ 0.05
	5	5.15	3.10	1.85	4.95	+ 0.20
	6	5.15	3.17	1.85	5.02	+ 0.13
7.....	4	6.45	3.18	2.22	5.40	+ 1.05
	5	6.45	3.19	2.16	5.35	+ 1.10
	6	6.45	3.21	2.09	5.30	+ 1.15
8.....	4	7.45	3.30	2.58	5.88	+ 1.57
	5	7.45	3.30	2.59	5.89	+ 1.56
	6	7.45	3.43	2.59	6.02	+ 1.43
9.....	4	8.53	3.39	3.57	6.96	+ 1.57
	5	8.53	3.28	3.70	6.98	+ 1.55
	6	8.53	3.50	3.63	7.13	+ 1.40

TABLE M.

Showing Phosphorus balances in sheep during digestion periods 1-9.

Period.	Sheep No.	P. consumed per day (gm.).	P. excreted per day.			Mean daily P- balance (gm.).
			Faeces (gm.).	Urine (gm.).	Total (gm.).	
1.....	4	0.46	0.57	0.005	0.58	- 0.12
	5	0.47	0.61	0.004	0.61	- 0.14
	6	0.47	0.65	0.004	0.65	- 0.18
2.....	4	0.64	0.71	0.004	0.71	- 0.07
	5	0.65	0.68	0.004	0.68	- 0.03
	6	0.65	0.71	0.004	0.71	- 0.06
3.....	4	0.72	0.69	0.005	0.70	+ 0.02
	5	0.72	0.69	0.004	0.69	+ 0.03
	6	0.72	0.71	0.004	0.71	+ 0.01
4.....	4	0.94	0.70	0.006	0.71	+ 0.23
	5	0.94	0.72	0.004	0.72	+ 0.22
	6	0.94	0.73	0.004	0.73	+ 0.21
5.....	4	0.44	0.55	0.004	0.55	- 0.11
	5	0.45	0.58	0.004	0.58	- 0.13
	6	0.45	0.58	0.003	0.58	- 0.13
6.....	4	0.53	0.60	0.004	0.60	- 0.07
	5	0.54	0.65	0.004	0.65	- 0.11
	6	0.54	0.64	0.003	0.64	- 0.10
7.....	4	0.64	0.64	0.005	0.65	- 0.01
	5	0.64	0.66	0.004	0.66	- 0.02
	6	0.64	0.66	0.004	0.66	- 0.02
8.....	4	0.67	0.65	0.005	0.66	+ 0.01
	5	0.67	0.65	0.005	0.66	+ 0.01
	6	0.67	0.67	0.004	0.67	0.00
9.....	4	0.70	0.65	0.006	0.66	+ 0.04
	5	0.70	0.65	0.005	0.66	+ 0.04
	6	0.70	0.69	0.004	0.69	+ 0.01

INFLUENCE OF CUTTING ON YIELD, ETC., OF GRASS SPECIES.

TABLE N.

Showing Calcium balances in sheep during digestion periods 1-9.

Period.	Sheep No.	Ca. consumed per day.			Ca. excreted per day.			Mean daily Ca. balance (gm.).
		Food (gm.).	Water (gm.).	Total (gm.).	Faeces (gm.).	Urine (gm.).	Total (gm.).	
1.....	4	1.90	0.08	1.98	2.46	0.15	2.61	- 0.63
	5	1.97	0.08	2.05	2.66	0.13	2.79	- 0.74
	6	1.97	0.07	2.04	2.67	0.20	2.87	- 0.83
2.....	4	2.20	0.09	2.29	2.58	0.16	2.74	- 0.45
	5	2.21	0.08	2.29	2.62	0.10	2.72	- 0.43
	6	2.21	0.08	2.29	2.54	0.16	2.70	- 0.41
3.....	4	2.54	0.09	2.63	2.83	0.21	3.04	- 0.41
	5	2.54	0.09	2.63	2.83	0.17	3.00	- 0.37
	6	2.54	0.08	2.62	2.82	0.20	3.02	- 0.40
4.....	4	2.10	0.09	2.19	2.43	0.14	2.57	- 0.38
	5	2.10	0.08	2.18	2.58	0.13	2.71	- 0.53
	6	2.10	0.08	2.18	2.51	0.17	2.68	- 0.50
5.....	4	2.59	0.07	2.66	2.83	0.33	3.16	- 0.50
	5	2.63	0.07	2.70	3.01	0.24	3.25	- 0.55
	6	2.63	0.06	2.69	3.03	0.29	3.32	- 0.63
6.....	4	2.33	0.08	2.41	2.56	0.21	2.77	- 0.36
	5	2.36	0.07	2.43	2.78	0.15	2.93	- 0.50
	6	2.36	0.06	2.42	2.71	0.22	2.93	- 0.51
7.....	4	2.83	0.08	2.91	3.04	0.33	3.37	- 0.46
	5	2.83	0.07	2.90	3.06	0.24	3.30	- 0.40
	6	2.83	0.07	2.90	3.03	0.32	3.35	- 0.45
8.....	4	2.69	0.08	2.77	2.89	0.35	3.24	- 0.47
	5	2.69	0.07	2.76	2.89	0.23	3.12	- 0.36
	6	2.69	0.07	2.76	2.88	0.31	3.19	- 0.43
9.....	4	2.69	0.07	2.76	2.75	0.25	3.00	- 0.24
	5	2.69	0.07	2.76	2.77	0.19	2.96	- 0.20
	6	2.69	0.06	2.75	2.83	0.24	3.07	- 0.32