

AREA 5 (*continued*).

Farm,	District,	Date,	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre	Soluble Ash.	Description of Sample.
Contest.....	Fort Beaufort..	Dec., 1933	.27	.22	.14	.2·55	.16	.91	11·0	33·3	5·51	Grass, green, mainly green, short.
		Mar., 1934	.11	.25	.14	.1·26	.04	.28	7·3	33·6	2·98	Grass, mainly green, short.
		June, 1934	.17	.40	.18	2·17	.14	1·00	8·9	33·0	5·34	Grass, leafy.
		Sept., 1934	.12	.49	.11	.82	.54	.36	6·8	36·0	3·70	Grass, mainly brown, short and bush; mostly grass.
		Jan., 1935	.15	.29	.17	1·86	.09	.84	8·7	33·9	4·19	Grass, mainly green, leafy.
		April, 1935	.13	.30	.15	1·41	.08	.13	8·0	33·9	3·29	Grass, mainly green, leafy.
		July, 1935	.19	.40	.19	2·56	.15	1·02	10·1	28·4	5·53	Grass, mainly green, leafy.
		Oct., 1935	.13	.34	.15	.84	.05	.29	5·9	34·3	2·39	Grass, mainly brown, leafy.
Nieuweling.....	Adelaide.....	Jan., 1934	.19	.68	.32	2·21	1·38	1·62	8·3	27·8	9·36	Grass and bush.
		April, 1934	.16	.32	.12	1·66	.40	.50	6·1	33·1	4·23	Grass, mainly green and bush; mostly grass.
		June, 1934	.10	.41	.15	1·03	.88	.57	5·6	35·6	4·00	Grass, short and bush; mostly grass.
		Oct., 1934	.12	.51	.19	.99	.67	.43	7·9	35·8	3·39	Grass, mainly brown and bush.
		Feb., 1935	.12	.37	.19	1·52	.75	.71	7·8	36·5	4·72	Grass, mainly green and bush; mostly grass.
		May, 1935	.11	.34	.10	1·37	.23	.33	6·8	38·7	4·72	Grass, mainly green, leafy and bush.
		Aug., 1935	.14	.90	.23	1·25	.82	.60	9·3	32·6	7·19	Bush.
		Nov., 1935	.12	.49	.21	1·51	.65	.57	8·5	38·1	5·04	Grass, green, short and bush; mostly bush.
Oskraal.....	Bedford.....	Nov., 1933	.26	.26	.17	2·07	.32	.52	10·6	31·7	5·16	Grass, green, short and bush.
		Feb., 1934	.16	.26	.13	1·80	.25	.56	8·7	36·8	4·00	Grass, mainly green, short.
		May, 1934	.17	.47	.17	1·49	.27	.69	4·5	35·7	4·13	Grass, mainly green.
		Nov., 1934	.12	.24	.10	1·32	.07	.45	7·0	32·3	3·07	Grass, mainly green, short.
		April, 1935	.09·2	.27	.08	.62	.06	.13	4·6	32·5	2·30	Grass, short.
		July, 1935	.12	.45	.08	.76	.05	.23	7·0	33·3	2·93	Grass, mainly green, short, and bush; mostly grass.
Request.....	Bedford.....	Dec., 1933	.22	.32	.17	2·42	.52	1·15	10·5	31·6	6·07	Grass, mainly green and bush; mostly grass.
		Mar., 1934	.19	.31	.13	1·42	.08	.42	7·5	36·2	3·33	Grass, mainly green.
		June, 1934	.16	.42	.12	.92	.13	.30	5·8	34·2	2·96	Grass, mainly brown, leafy.
		Sept., 1934	.09·6	.44	.08	.69	.18	.18	6·1	39·3	2·44	Grass, mainly brown and bush.
		Feb., 1935	.19	.28	.11	1·68	.19	.53	6·9	33·9	4·04	Grass, mainly green, short.
		May, 1935	.11	.42	.12	.92	.11	.29	6·6	35·4	7·28	Grass, mainly green, short and bush; mostly grass.
		Aug., 1935	.14	.27	.11	.71	.06	.19	5·9	35·6	2·26	Grass, mainly brown, short.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 5 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Krugerskraal....	Bedford.....	Jan., 1934 April, 1934	.13 .12	.36 .40	.18 .14	.1·41 .1·41	.22 .47	.39 .40	7.7 6.7	40·9 35·3	3·77 3·68	Grass, mainly green and bush. Grass, mainly green, short and bush; mostly grass.
		July, 1934	.096	.64	.15	.87	.56	.27	6.5	38·5	4·09	Grass, mainly brown, short and bush.
		Oct., 1934	.094	.53	.22	.90	.17	.22	5·7	39·6	3·10	Grass, brown and bush.
		Mar., 1935	.08	.49	.10	.76	.18	.11	6·1	39·4	2·98	Grass, mainly green and bush; mostly bush.
		June, 1935	.19	.93	.45	2·00	1·42	.28	11·3	26·7	9·28	Bush.
		Sept., 1935	—	.42	.12	1·20	.16	—	9·5	33·5	3·82	Grass, green, short and bush; mostly grass.
Karkotskraal....	Somerset East..	Nov., 1933 Feb., 1934	.26 .08	.60 .37	.32 .13	3·05 1·24	1·64 .12	1·61 .33	14·8 8·1	29·5 39·7	9·72	Bush.
		May, 1934	.19	.54	.14	1·43	.26	.37	6·5	41·3	3·40	Grass, mainly green and bush; mostly grass.
		Aug., 1934	.094	.29	—	.75	.16	.19	5·4	40·7	3·89	Grass, short and bush; mostly bush.
		Nov., 1934 Feb., 1935	-.068 .22	.48 .53	.13 .19	1·22 2·33	.41 .55	.43 .36	7·1 10·2	42·3 34·4	4·52	Grass, mainly brown and bush; mostly grass.
		May, 1935	.21	.57	.14	1·89	.25	.53	12·3	36·8	6·14	Bush.
		Aug., 1935	.15	.60	.19	1·26	.60	.36	9·3	39·4	5·36	Grass and bush.
Rietfontein.....	Somerset East..	Dec., 1933 Mar., 1934	.22 .15	.51 .34	.27 .23	2·71 1·69	.90 .37	1·00 .59	14·0 11·2	31·4 32·2	8·21 5·25	Grass, green and bush. Grass, mainly green and bush; mostly grass.
		June, 1934	.21	.67	.23	1·23	1·14	.93	10·5	37·4	8·46	Bush.
		Sept., 1934	.11	.53	.12	1·64	.38	.27	6·4	46·2	4·44	Bush.
		Dec., 1934	.098	.55	.12	.59	.39	.19	6·0	46·0	4·05	Bush.
		Mar., 1935	.096	.46	.12	1·43	.43	.21	7·2	39·4	3·97	Grass, green and bush; mostly bush.
		June, 1935	.24	.47	.17	2·12	.22	.71	13·7	30·4	5·39	Grass, green, short.
		Sept., 1935	.21	.80	.46	2·28	1·59	.28	15·4	30·2	10·18	Bush.
Wentworth.....	Somerset East..	Jan., 1934 April, 1934	.26 .30	.66 .72	.30 .36	2·19 2·90	1·86 .59	.96 .76	13·3 11·9	34·3 30·7	10·03 7·78	Bush.
		July, 1934	.23	.60	.23	1·88	1·25	.80	10·5	33·7	7·20	Grass, mainly green and bush; mostly grass.
		Oct., 1934	.21	.55	.29	1·63	.94	.86	9·9	32·8	7·40	Bush.
		Jan., 1935	.18	.49	.20	1·51	.58	.60	8·5	40·1	5·29	Bush.
		April, 1935	.20	.64	.27	2·33	1·27	.26	10·8	34·3	7·84	Grass and bush; mostly bush.
		July, 1935	.18	.70	.19	1·59	.67	.55	10·0	40·1	5·56	Bush.
		Oct., 1935	.29	.68	.39	3·56	.51	1·13	15·8	34·5	9·62	Grass and bush.

## AREA 6.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Mount Prospect.	Herschel.....	Oct., 1933	.13	.94	.26	.76	.02	.08	10.0	21.4	6.04	Bush.
		Feb., 1934	.13	.25	.15	1.93	.03	.38	3.9	38.4	3.83	Grass, long.
		April, 1934	.12	.18	.05	.93	.03	.20	4.8	35.9	1.76	Grass.
		July, 1934	.074	.26	.09	.56	.01	.12	2.7	38.5	1.56	Grass, mainly brown.
		Oct., 1934	.064	.34	.12	.41	.02	.06	3.8	37.4	1.61	Grass, mainly brown.
Josanashock....	Herschel.....	Mar., 1935	.066	.26	.11	.81	trace	.04	3.9	41.6	1.92	Grass, mainly green, long.
		Sept., 1935	.056	.24	.04	.18	.02	.05	4.2	39.0	1.19	Grass, brown.
Kranspruit.....	Herschel.....	Nov., 1933	.10	.42	.12	.56	.02	.06	5.4	30.6	2.79	Grass, mainly brown and bush; mostly grass.
		Mar., 1934	.11	.23	.15	.39	.04	.25	6.9	35.5	4.38	Grass, mainly green.
		Aug., 1934	.05	.30	.11	.48	trace	.06	2.7	38.8	2.50	Grass, mainly brown.
		Feb., 1935	.13	.33	.04	.62	.02	.09	4.2	33.1	1.49	Grass.
		April, 1935	.075	.30	.11	.49	trace	.08	3.6	37.4	1.60	Grass, mainly brown.
		June, 1935	.06	.23	.07	.29	trace	.07	3.4	39.9	1.31	Grass, mainly brown.
		July, 1935	.07	.24	.09	.45	.03	.11	3.7	40.2	1.33	Grass, mainly brown.
		Oct., 1935	.05	.25	.05	.25	trace	.01	3.7	39.7	1.32	Grass, mainly brown.
Malpas.....	Herschel.....	Dec., 1933	.32	.26	.17	3.26	.05	.50	15.2	32.5	6.49	Grass, green.
		Mar., 1934	.18	.26	.08	1.13	.02	.23	4.5	35.5	2.56	Grass.
		May, 1934	.13	.39	.15	.93	.03	.23	4.1	36.7	2.77	Grass.
		June, 1934	.16	.30	.05	.75	.01	.17	3.5	38.9	2.02	Grass, brown.
		Sept., 1934	.062	.36	.14	.34	trace	.09	3.7	37.2	1.79	Grass, mainly brown.
		Feb., 1935	.064	.19	.06	.60	trace	.06	5.6	40.0	1.34	Grass, long.
		May, 1935	.073	.21	.05	.35	.02	.08	3.8	36.9	1.23	Grass, mainly brown.
		Aug., 1935	.044	.26	.09	.39	.01	.12	3.9	35.9	1.41	Grass, mainly brown.
Barkley East..	Barkley East..	Nov., 1933	.068	.34	.12	.41	.01	.12	4.3	35.1	2.07	Grass, mainly brown.
		Feb., 1934	.31	.80	.27	2.84	.04	.38	8.2	25.2	10.20	Grass, mainly green and bush.
		May, 1934	.17	.54	.16	.46	.03	.35	6.7	32.7	3.50	Grass and bush; mostly grass.
		Aug., 1934	.14	.43	.17	.88	.01	.16	5.8	33.6	2.84	Grass, mainly brown, leafy.
		Nov., 1934	.25	.48	.18	2.04	.05	.38	14.2	27.5	4.78	Grass, mainly green, leafy and bush; mostly grass.
		Feb., 1935	.22	.37	.14	1.46	trace	.76	10.1	28.1	3.67	Grass, green, leafy.
		May, 1935	.18	.35	.12	.93	.02	.14	5.4	34.7	2.42	Grass, mainly brown, leafy.
		Aug., 1935	.083	.30	.11	.55	trace	.14	3.3	38.3	1.79	Grass, mainly brown, leafy.
Earlstown.....	Barkley East..	Dec., 1933	.33	1.22	.42	4.04	.06	.48	19.6	22.7	11.70	Grass, green, leafy and bush; mostly bush.
		Mar., 1934	.18	.88	.31	2.20	.06	.28	9.4	32.1	6.44	Grass and bush.
		July, 1934	.20	.68	.18	1.29	.02	.18	9.0	31.1	3.85	Grass, leafy.
		Sept., 1934	.18	.47	.15	1.15	.03	.21	10.6	31.7	3.14	Grass, leafy and bush; mostly grass.
		Dec., 1934	.27	.48	.18	2.38	.08	.38	12.6	31.6	5.12	Grass, green, leafy.
		Mar., 1935	.09	.31	.13	1.57	.03	.31	8.3	35.3	3.28	Grass, green, leafy.
		July, 1935	.17	.26	.12	1.24	.02	.20	7.0	35.1	2.08	Grass, mainly green.
		Sept., 1935	.15	.27	.08	.67	.02	.16	5.3	38.3	2.02	Grass, brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 6 (*continued*).

Farm.	District,	Date,	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Glass Neven . . . .	Barkley East..	Jan., 1934	.22	.49	.24	2.74	.06	.45	12.5	33.0	6.27	Grass, green and bush; mostly grass.
		April, 1934	.18	.56	.22	2.35	.07	.42	10.8	31.2	5.02	Grass, mainly green and bush; mostly grass.
		July, 1934	.09	.35	.12	.70	.01	.12	4.3	33.1	1.90	Grass, mainly brown, leafy.
		Oct., 1934	.16	.60	.20	1.52	.04	.43	10.1	30.6	4.30	Grass, mainly green, leafy and bush; mostly grass.
		Jan., 1935	.20	.55	.23	1.95	trace	.38	9.1	31.6	4.36	Grass, green, leafy.
		April, 1935	.17	.52	.24	2.03	.06	.55	10.7	30.0	4.88	Grass, mainly green, leafy.
		July, 1935	.12	.35	.10	.78	.03	.16	5.0	33.4	2.09	Grass, mainly brown, leafy.
		Oct., 1935	.17	.35	.12	1.35	.04	.33	6.8	35.8	3.33	Grass, mainly green, leafy.
Grootvlei . . . . .	Barkley East..	Nov., 1933	.11	.41	.20	.58	.02	.20	5.4	33.3	2.51	Grass, mainly brown.
		Feb., 1934	.24	.31	.12	1.50	.03	.19	8.6	33.6	3.72	Grass, green, short.
		May, 1934	.21	.42	.17	1.13	.04	.15	7.7	32.6	5.10	Grass, mainly green, leafy.
		Aug., 1934	.17	.65	.24	1.08	.01	.18	8.4	30.1	3.99	Grass, mainly brown, short and bush.
		Nov., 1934	.23	.33	.14	1.25	trace	.18	11.9	29.5	3.05	Grass, green, leafy.
		Feb., 1935	.19	.27	.10	1.29	.03	.76	9.2	30.2	2.85	Grass, green, leafy.
		May, 1935	.15	.26	.09	.59	.02	.08	4.3	32.6	1.83	Grass, mainly green, leafy.
		Aug., 1935	.15	.28	.10	.49	.03	.08	4.1	33.2	1.85	Grass, mainly brown, leafy.
The Falls . . . . .	Barkley East..	Dec., 1933	.29	.28	.22	1.29	.04	.18	13.1	28.4	3.56	Grass, mainly green, short.
		Mar., 1934	.16	.34	.14	.98	.04	.12	9.1	36.2	2.48	Grass, mainly green.
		June, 1934	.23	.39	.20	.87	.02	.14	6.3	29.7	3.34	Grass, leafy, and bush; mostly grass.
		Sept., 1934	.08	.37	.10	.31	.01	.04	3.9	30.3	1.83	Grass, brown, leafy.
		Dec., 1934	.24	.31	.12	1.47	.05	.24	11.2	31.4	3.12	Grass, green, leafy.
		Mar., 1935	.24	.35	.17	1.10	.06	.21	5.8	33.3	3.01	Grass, green, leafy.
		June, 1935	.13	.26	.09	.48	trace	.07	4.4	33.1	1.83	Grass, mainly brown, short.
		Sept., 1935	.07	.21	.03	.24	.07	.16	3.4	33.2	1.67	Grass, brown, short.
Zevenfontein . . . .	Barkley East..	Jan., 1934	.31	.44	.22	2.26	.06	.37	17.2	24.8	5.19	Grass, green.
		April, 1934	.17	.29	.10	.69	.04	.09	7.0	32.9	1.79	Grass, mainly green.
		July, 1934	.11	.25	.12	.37	trace	.08	3.5	34.3	3.58	Grass, mainly brown, leafy.
		Oct., 1934	.16	.56	.11	.54	.02	.08	5.2	34.3	2.13	Grass, brown, leafy.
		Jan., 1935	.16	.26	.10	.80	.04	.36	6.9	30.5	2.23	Grass, green, leafy.
		April, 1935	.12	.32	.15	.68	.04	.09	6.3	28.5	2.12	Grass, green, short.
		July, 1935	.18	.30	.11	.53	.02	.12	4.9	34.1	1.88	Grass, mainly brown, leafy.
		Oct., 1935	.19	.34	.14	.94	trace	.21	10.3	33.3	2.80	Grass, green.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Bamboeshoek . . .	Lady Grey . . . .	Nov., 1933 Mar., 1934 June, 1934	.08 .22 .13	.17 .23 .36	.07 .34 .12	.48 .31 .12	.01 .03 .03	.09 .13 .10	4.1 8.2 6.4	36.4 35.7 31.0	1.64 2.86 2.79	Grass, mainly brown. Grass, mainly green. Grass, mainly green and bush; mostly grass.
		Sept., 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.12 .13 .19 .072 .08	.40 .31 .40 .27 .25	.11 .12 .14 .07 .09	.55 .41 .36 .34 .51	.02 trace trace trace trace	.08 .22 .83 .07 .08	6.5 10.3 8.4 4.8 4.8	35.9 35.9 32.9 40.6 37.1	1.75 2.95 3.16 1.47 3.43	Grass, mainly brown. Grass, green, long. — Grass. Grass, brown.
Burnet . . . . .	Lady Grey . . . .	Dec., 1933 Feb., 1934 May, 1934	.27 .21 .086	.35 .24 .49	.17 .11 .16	.06 .67 .68	.03 .04 .01	.43 .18 .07	10.4 8.2 5.4	34.1 34.2 35.4	5.04 3.42 2.40	Grass, green and bush; mostly grass. Grass, mainly green. Grass, mainly brown and bush; mostly grass.
		Aug., 1934 Nov., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.11 .11 .15 .14 .06 .096	.30 .26 .17 .38 .33 .20	.13 .26 .10 .11 .11 .06	.16 .56 .51 .74 .29 .46	.01 trace .03 .02 .02 .04	.13 .14 .24 .08 .13 .06	4.6 5.4 5.7 5.4 3.1 4.4	32.7 33.1 25.9 34.3 36.8 40.4	1.90 1.79 2.66 1.81 1.38 1.36	Grass, mainly brown. Grass, mainly green. Grass, mainly green. Grass, mainly green. Grass, mainly brown. Grass.
Zandvlei . . . . .	Lady Grey . . . .	Jan., 1934 April, 1934 July, 1934	.25 .17 .14	.34 .29 .55	.12 .09 .12	.80 .21 .78	.05 .04 .02	.28 .13 .11	10.8 5.6 6.0	34.4 35.8 34.3	4.00 2.42 2.58	Grass, mainly green. Grass. Grass, mainly brown and bush;
		Oct., 1934 Dec., 1934 Mar., 1935 June, 1935 Sept., 1935	.12 .22 .13 .11 .10	.27 .26 .37 .34 .28	.15 .12 .10 .10 .08	.68 .54 .76 .63 .66	.01 .05 .02 .03 .04	.08 .24 .10 .11 .09	5.3 8.2 4.3 5.7 6.4	36.0 37.2 37.6 35.2 33.1	2.17 3.29 2.62 2.20 2.50	Grass, mainly brown, and bush; mostly grass. Grass, mainly green. Grass, mainly brown. Grass.
Antelope Park . . .	Maeleaf . . . . .	Nov., 1933 Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.18 .16 .076 .047 .16 .16 .13 .07	.21 .26 .27 .23 .26 .32 .30 .26	.18 .10 .11 .08 .26 .09 .12 .10	.86 .16 .84 .23 .40 .22 .94 .26	.02 .03 .02 .08 .02 .02 .04 .02	.60 .22 .21 .03 .28 .11 .13 .09	13.8 8.3 6.5 4.5 10.5 8.5 6.3 0.9	34.2 34.9 31.5 31.6 32.0 35.7 33.1 4.8	4.98 3.81 2.03 1.48 3.03 2.65 2.30 3.3.9	Grass, mainly green, short. Grass, green. Grass, mainly green, leafy. Grass, mainly brown, short. Grass, green, short. Grass, green, short. Grass, mainly green, short. Grass, brown, short.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Chamisso . . . . .	Maclear . . . . .	Dec., 1933	.16	.30	.13	.1.91	.04	.39	11.5	36.0	4.10	Grass, mainly green.
		Mar., 1934	.12	.24	.12	1.15	.01	.19	8.3	34.9	2.37	Grass, green, short.
		June, 1934	.044	.29	.07	.34	trace	.14	4.1	31.4	1.65	Grass, mainly brown, leafy.
		Sept., 1934	.19	.18	.09	1.41	.06	.44	10.5	35.0	2.94	Grass, green.
		Dec., 1934	.11	.20	.11	1.31	trace	.33	10.6	34.6	2.59	Grass, green, short.
		Mar., 1935	.11	.27	.09	1.45	trace	.20	7.0	31.3	2.67	Grass, green, short.
		June, 1935	.085	.29	.09	.28	trace	.14	4.7	32.9	1.87	Grass, short.
		Sept., 1935	.07	.27	.05	.53	.03	.10	4.1	32.9	1.60	Grass, brown, short.
Elandsheight . . . . .	Maclear . . . . .	Jan., 1934	.17	.26	.18	4.22	.10	1.62	15.2	33.4	8.66	Grass, green.
		April, 1934	.095	.28	.11	1.08	.02	.19	6.6	33.9	2.48	Grass, mainly green, leafy.
		July, 1934	.057	.19	.10	.31	trace	.08	5.2	32.0	1.52	Grass, mainly brown, short.
		Oct., 1934	.16	.29	.13	1.36	.05	.52	13.0	30.5	3.12	Grass, mainly green, short.
		Jan., 1935	.16	.26	.12	2.10	.03	.39	9.5	33.1	3.72	Grass, green, short.
		April, 1935	.11	.31	.12	1.00	.06	.27	7.7	31.4	2.51	Grass, green, short.
		July, 1935	.082	.27	.09	.39	.07	.14	4.9	33.6	1.92	Grass, brown, short.
		Oct., 1935	.11	.26	.09	.71	.01	.15	8.7	32.8	2.23	Grass, mainly green, short.
Rosslyn Park . . . . .	Maclear . . . . .	Nov., 1933	.15	.20	.11	1.38	.04	.35	10.1	—	2.91	Grass, mainly green.
		Feb., 1934	.18	.29	.12	1.19	.02	.20	6.4	34.7	2.60	Grass, mainly green, short.
		May, 1934	.036	.38	.11	.39	.01	.10	4.0	34.2	1.72	Grass, mainly brown, short.
		Nov., 1934	.10	.26	.14	1.48	trace	.35	6.8	37.5	2.78	Grass, green, leafy.
		April, 1935	.072	.28	.11	.34	trace	.16	4.6	34.3	1.81	Grass, mainly green, leafy.
		Oct., 1935	.12	.26	.14	1.43	.07	.47	7.9	36.5	3.05	Grass, green, leafy.
Sunnyslope . . . . .	Maclear . . . . .	Dec., 1933	.20	.32	.17	1.66	.02	.33	11.7	31.8	3.65	Grass, mainly green, short.
		Mar., 1934	.11	.39	.15	.88	.01	.16	5.8	35.3	2.34	Grass, short.
		June, 1934	.086	.34	.08	.34	trace	.04	—	31.0	1.74	Grass, mainly brown, short.
		Jan., 1935	.10	.29	.11	1.19	.15	.22	5.9	34.9	2.38	Grass, green, leafy.
		Feb., 1935	.092	.27	.09	.95	trace	.19	6.1	34.5	1.97	Grass, green, leafy.
		Sept., 1935	.16	.25	.13	1.96	.04	.56	12.2	32.6	4.01	Grass, green, short.
Orpen . . . . .	Maclear . . . . .	Jan., 1934	.11	.29	.12	1.09	.02	.20	6.9	33.3	3.00	Grass, green, short.
		April, 1934	.066	.39	.13	.57	.02	.14	4.7	34.8	1.87	Grass, short.
		July, 1934	.04	.23	.07	.15	trace	.04	3.3	33.4	1.13	Grass, brown, leafy.
		Oct., 1934	.17	—	—	—	—	.37	8.4	34.0	3.12	Grass, green, leafy.
		Mar., 1935	.082	.37	.11	.83	.07	.19	6.5	31.3	2.45	Grass, green, short.
		May, 1935	.086	.28	.10	.52	.01	.21	4.6	33.4	2.05	Grass, short.
Idylla . . . . .	Elliott . . . . .	Nov., 1933	.15	.40	.16	1.39	.32	—	10.4	31.2	3.44	Grass, mainly green, short.
		Feb., 1934	.11	.32	.14	1.16	.24	.26	6.6	33.3	2.58	Grass, leafy.
		May, 1934	.063	.37	.11	.66	.02	.14	4.3	33.2	1.86	Grass, short.
		Feb., 1935	.15	.19	.06	1.34	trace	.17	6.3	40.1	2.77	Grass.
		May, 1935	.16	.23	.07	.96	.02	.16	6.5	38.0	2.41	Grass, leafy.
		Aug., 1935	.086	.30	.13	.59	.08	.18	4.6	37.6	2.06	Grass, brown.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude-Protein.	Crude-Fibre.	Solu-ble-Ash.	Description of Sample.
Rooipoort.....	Elliot.....	Mar., 1934	.13	.41	.12	1.07	.03	.20	7.2	35.0	2.69	Grass, mainly green, leafy.
		June, 1934	.10	.24	.08	.91	.02	.21	4.9	33.7	2.22	Grass, short.
		Sept., 1934	.10	.37	.17	.83	.02	.20	6.4	32.9	2.73	Grass.
		Dec., 1934	.11	.26	.07	1.51	.03	.33	6.0	37.5	2.99	Grass, mainly green.
		Mar., 1935	.07	.23	.08	.81	.02	.16	6.1	34.8	1.79	Grass, green, long.
		July, 1935	.064	.29	.09	.35	.01	.12	4.2	41.3	1.40	Grass, mainly brown, leafy.
Ekowa.....	Elliot.....	Jan., 1934	.15	.26	.10	1.29	.05	.25	8.9	34.4	2.90	Grass, mainly green.
		April, 1934	.22	.38	.13	.97	.02	.10	5.8	34.5	2.33	Grass, short.
		Oct., 1934	.18	.20	.13	1.34	.04	.29	11.1	29.7	3.20	Grass, green, short.
		Jan., 1935	.13	.28	.07	1.20	.03	.25	6.2	39.3	2.43	Grass, mainly green, leafy.
		April, 1935	.11	.32	.11	.84	.04	.16	6.1	34.1	2.29	Grass, mainly green.
		June, 1935	.068	.24	.06	.45	.02	.09	4.2	39.8	1.55	Grass, mainly brown.
		Oct., 1935	.087	.22	.07	.60	.01	.12	3.1	37.5	1.60	Grass.
Carlton.....	Woodhouse....	Nov., 1933	.066	.26	.08	.29	.01	.07	4.1	35.3	1.76	Grass, brown, short.
		Feb., 1934	.20	.31	.20	1.76	.05	.39	8.9	29.8	3.78	Grass, mainly green.
		May, 1934	.098	.39	.12	.75	.01	.15	5.1	32.8	2.48	Grass, leafy.
		Aug., 1934	.06	.33	.09	.15	trace	.02	3.5	32.1	1.48	Grass, brown, leafy.
		Nov., 1934	.11	.29	.09	.71	.02	.16	7.1	32.4	1.98	Grass, green, short.
		Feb., 1935	.13	.40	.10	.86	.02	.14	6.2	31.7	2.42	Grass, mainly green, short.
		May, 1935	.15	.42	.12	.46	.02	.07	4.5	30.0	2.60	Grass, mainly green, short.
		Oct., 1935	.16	.38	.14	1.15	.27	.36	10.1	30.6	3.10	Grass, mainly green, short.
Uitkyk.....	Woodhouse....	Dec., 1933	.25	.36	.13	2.08	.05	.39	12.1	31.1	4.39	Grass, mainly green.
		Mar., 1934	.16	.33	—	1.20	.03	.25	8.2	32.4	3.07	Grass, mainly green, short.
		June, 1934	.12	.32	.08	.52	.02	.10	3.8	31.9	1.97	Grass, mainly brown, leafy.
		Sept., 1934	.085	.28	.01	.28	.01	.06	4.7	32.9	1.42	Grass, brown, leafy.
		Dec., 1934	.17	.31	.09	1.16	.12	.17	9.5	29.7	2.77	Grass, green, short.
		Mar., 1935	.14	.33	.10	1.09	.09	.30	5.8	32.6	2.68	Grass, green, short.
		Aug., 1935	.13	.36	.11	.65	.02	.10	3.6	32.7	2.17	Grass, mainly brown, short.
Mount Victory....	Woodhouse....	Jan., 1934	.22	.23	.14	1.81	.05	.39	12.0	30.2	4.01	Grass, mainly green, short.
		April, 1934	.19	.29	.11	1.05	.03	.15	8.7	33.9	2.26	Grass, mainly green, short.
		July, 1934	.096	.35	.08	.32	trace	.05	3.6	31.9	1.70	Grass, brown, leafy.
		Oct., 1934	.16	.27	.10	.85	.02	.11	7.5	31.1	2.38	Grass, leafy.
		Jan., 1935	.18	.31	.12	1.56	.04	.34	7.9	30.8	3.26	Grass, green, leafy.
		April, 1935	.16	.30	.08	.80	.02	.15	6.4	29.7	2.43	Grass, mainly green, short.
		Sept., 1935	.11	.30	.06	1.13	.03	.18	7.4	29.5	2.34	Grass, short.
Anniedale.....	Wepener.....	Jan., 1934	.20	.21	.11	1.68	.03	.34	8.2	38.7	3.69	Grass, green.
		April, 1934	.11	.26	.09	.97	.02	.17	4.9	38.3	2.20	Grass, mainly green, long.
		July, 1934	.10	.25	.11	.42	.01	.09	2.7	38.0	1.76	Grass, brown.
		Sept., 1934	.063	.14	.08	.14	trace	.02	2.1	39.0	1.17	Grass, brown.
		Jan., 1935	.18	.25	.09	1.58	.04	.30	7.2	35.0	3.17	Grass, green, long.
		April, 1935	.12	.33	.12	.52	.02	.08	5.0	33.9	1.91	Grass, green, leafy.
		Aug., 1935	.063	.19	.11	.16	trace	.07	2.7	35.7	1.22	Grass, brown.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

 AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Kruispoort.....	Wepener.....	Feb., 1934	.23	.27	.14	1.65	.05	.35	7.6	32.4	4.00	Grass, mainly green.
		May, 1934	.068	.30	.10	.42	trace	.04	2.9	40.2	1.66	Grass, mainly brown, long.
		Aug., 1934	.054	.30	.09	.18	trace	.01	2.5	40.0	1.26	Grass, brown.
		Nov., 1934	.18	.23	.10	1.10	.03	.24	9.9	33.3	2.48	Grass, green, long.
		Feb., 1935	.20	.30	.13	1.13	.05	.30	6.5	34.7	2.77	Grass, green, long.
		June, 1935	.07	.24	.06	.25	trace	.03	2.7	35.8	1.28	Grass, brown, leafy.
		Oct., 1935	.14	.24	.06	.60	.02	.11	5.8	34.4	1.87	Grass, mainly brown, leafy.
Yzervarkfontein..	Smithfield.....	Dec., 1933	.45	.42	.26	1.96	.30	.40	17.0	28.3	6.06	Grass, green, leafy.
Gronigen.....	Smithfield.....	May, 1934	.15	.46	.11	.69	.03	.12	5.6	34.8	2.47	Grass.
Mangazana.....	Smithfield.....	Jan. <sup>a</sup> , 1934	.23	.23	.17	2.08	.03	.35	11.9	33.2	4.08	Grass, green;
		May, 1934	.18	.49	.14	.90	.03	.15	5.1	31.8	3.04	Grass, mainly green.
Evening Star....	Ladybrand....	Feb., 1934	.19	.29	.17	1.81	.03	.10	9.2	35.8	3.72	Grass, mainly green.
		June, 1934	.22	.34	.10	.96	.04	.13	4.7	35.1	2.65	Grass, mainly brown, leafy.
McCabe bespruit....	Ladybrand....	Jan. <sup>a</sup> , 1934	.17	.23	.10	1.66	.08	.36	10.3	32.1	3.84	Grass, green.
		Nov., 1934	.11	.21	.09	1.43	trace	.28	8.5	36.3	2.51	Grass, mainly green, long.
		April, 1935	.15	.25	.07	.59	.02	.08	3.9	38.8	1.86	Grass, mainly brown, long.
Ebrenbrachstein..	Ladybrand....	Aug., 1934	.075	—	.09	.28	.03	.02	6.3	35.0	1.37	Grass, brown.
		Mar., 1935	.16	.30	.07	.75	.03	.10	4.8	37.7	2.03	Grass, mainly green, long.
St. Mark.....	Zastron.....	Jan., 1934	.16	.24	.14	1.67	.03	.35	11.1	36.3	3.40	Grass, mainly green.
		April, 1934	.096	.26	.10	1.21	.03	.25	6.4	30.7	2.49	Grass, mainly green.
		July, 1934	.10	.28	.09	.51	.01	.07	3.6	36.2	1.69	Grass, brown.
		Oet. <sup>a</sup>							2.5	34.1	2.75	Grass, mainly green.
		Jan., 1935	.17	.23	.12	.90	.02	.25	8.9	34.1	2.27	Grass, green.
		April, 1935	.14	.30	.11	1.52	.04	.41	7.0	34.9	2.26	Grass, mainly green.
		July, 1935	.095	.21	.12	.78	.06	.14	5.1	34.4	1.52	Grass, brown.
		Oct., 1935	.21	.28	.11	1.71	.03	.50	12.5	34.6	3.80	Grass, green, leafy.
Rozendaal.....	Zastron.....	Feb., 1934	.23	.21	.16	1.84	.04	.72	7.5	36.7	3.65	Grass, mainly green.
		May, 1934	.15	.24	.19	.73	.03	.21	5.1	39.1	2.33	Grass.
		Aug., 1934	.10	.17	.17	.60	.01	.10	4.0	39.8	1.74	Grass, brown.
		Nov., 1934	.18	.28	.17	1.61	trace	.37	9.8	35.8	3.16	Grass, mainly green, long.
		Feb., 1935	.11	.21	.08	.84	trace	.14	4.6	38.7	1.88	Grass, mainly green, leafy.
		May, 1935	.15	.23	.19	1.18	.09	.36	7.8	36.4	2.91	Grass, mainly green, leafy.
		Aug., 1935	.08	.23	.11	.45	.03	.11	4.5	36.1	2.00	Grass, mainly brown, leafy.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Kalkhoek.....	Zastron.....	Mar., 1934	.18	.31	.11	1.42	.03	.25	5.5	36.5	3.29	Grass, mainly green.
		June, 1934	.097	.30	.07	.73	.02	.12	3.8	37.1	2.05	Grass, mainly brown.
		Sept., 1934	.13	.33	.14	.42	.03	.05	3.2	35.2	1.75	Grass, brown.
		Dec., 1934	.18	.25	.16	.21	.12	.46	8.6	37.3	3.99	Grass, mainly green.
		Mar., 1935	.21	.28	.07	.78	trace	.12	5.4	36.8	2.12	Grass, leafy.
		June, 1935	.14	.24	.08	.57	trace	.10	3.8	36.7	1.66	Grass, brown.
Welgevund.....	Vrede.....	Sept., 1935	.17	.53	.09	.88	.07	.13	6.3	34.4	3.43	Grass.
		Dec., 1933	.15	.40	.18	1.53	.04	.32	9.1	34.5	3.42	Grass, green,
		July, 1934	.025	.39	.11	.13	.02	.02	4.3	33.9	1.50	Grass, mainly brown, short.
		Feb., 1935	.094	.28	.10	.76	.06	.21	4.8	35.3	1.99	Grass, mainly green, leafy.
		Aug., 1935	.085	.30	.08	.33	.04	.08	3.0	37.5	1.58	Grass, brown, short.
Venterkloof.....	Vrede.....	Jan., 1934	.10	.34	.12	.97	.02	.16	6.5	31.4	2.71	Grass, mainly green, short.
		Aug., 1934	.047	.36	.09	.12	trace	.02	2.9	32.5	1.22	Grass, brown, leafy.
		April, 1935	.088	.47	.16	.42	trace	.19	4.3	30.8	2.11	Grass, mainly green, short.
Aanvang.....	Vrede.....	June, 1934	.042	.42	.15	.42	trace	.07	3.1	32.6	1.84	Grass, brown, leafy.
		Sept., 1934	.053	.37	.05	.22	trace	.03	6.0	32.5	1.56	Grass, mainly brown, leafy.
		Jan., 1935	.096	.39	.12	—	.02	.11	4.4	31.8	2.28	Grass, mainly green, leafy.
		June, 1935	.05	.34	.07	.21	trace	.05	3.5	33.6	1.31	Grass, brown, leafy.
Rondedraai.....	Harris Smith.....	April, 1935	.14	.30	.10	.86	.06	.18	6.4	33.8	2.21	Grass, mainly green, leafy.
		July, 1935	.062	.20	.08	.26	trace	.05	2.5	37.7	1.20	Grass, brown.
		Oct., 1935	.047	.20	.04	.14	.04	—	3.2	38.1	1.18	Grass, brown.
De Hoop.....	Harris Smith.....	May, 1935	.096	.31	.13	.79	.01	.11	3.1	39.4	2.09	Grass, mainly brown.
		Aug., 1935	.05	.25	.07	.32	trace	.01	3.0	39.6	1.41	Grass, brown, leafy.
De Villiers.....	Harris Smith.....	June, 1935	.055	.23	.11	.50	trace	.04	3.7	40.1	1.37	Grass, mainly brown.
		Sept., 1935	.082	.28	.07	.27	.02	.03	2.9	35.3	1.51	Grass, brown, leafy.
Shorthorn.....	Frankfort.....	Dec., 1933	.18	.38	.17	1.64	.04	.34	10.1	33.0	3.65	Grass, mainly green and bush ; mostly grass.
		Mar., 1934	.08	.58	.21	1.03	.02	.16	5.9	34.5	3.32	Grass, mainly green, and bush ; mostly grass.
		July, 1934	.035	.61	.19	.13	trace	.01	2.9	37.9	2.25	Grass, brown and bush ; mostly grass.
		Dec., 1934	.25	.49	.22	1.66	.36	.41	9.6	31.7	5.50	Grass, mainly green, and bush ; mostly grass.
		Jan., 1935	.14	.32	.21	2.05	.03	.34	6.9	34.8	4.06	Grass, green, and bush ; mostly grass.
		June, 1935	.054	.24	.06	.19	trace	.04	2.9	43.0	1.11	Grass, brown, leafy.
		Aug., 1935	.11	.45	.23	.85	.04	.32	5.0	35.3	3.13	Grass, mainly brown, leafy.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Egge.....	Frankfort.....	Jan., 1934	.15	.45	.23	1.48	.02	.28	8.8	39.8	4.37	Grass, mainly green and bush; mostly grass.
		April, 1934	.07	.53	.16	.90	.02	.19	5.5	34.8	2.87	Grass and bush; mostly grass.
		July, 1934	.036	.38	.15	.11	.01	.02	3.4	38.1	1.46	Grass, brown.
		Nov., 1934	.18	.46	.20	2.15	.13	.57	11.1	35.2	4.62	Grass, leafy and bush; mostly grass.
		May, 1935	.084	.64	.24	.74	.02	.16	4.6	37.5	3.10	Grass, brown and bush; mostly grass.
		Oct., 1935	.067	.26	.06	.18	.02	.02	4.0	35.8	1.45	Grass, brown, leafy.
Sandput.....	Frankfort.....	Feb., 1934	.083	.17	.07	1.20	.01	.29	3.9	41.3	2.14	Grass, mainly green, long, grass, mainly brown, and bush;
		May, 1934	.05	.37	.13	.45	.01	.12	4.6	38.9	1.95	mostly grass.
		Sept., 1934	.067	.23	.10	.36	trace	.06	5.2	39.8	1.46	Grass, mainly brown.
		Feb., 1935	.14	.40	.19	1.41	trace	.16	7.1	34.5	3.13	Grass, mainly green.
		April, 1935	.086	.46	.13	.69	trace	.02	4.7	34.6	2.36	Grass, mainly brown, leafy and bush; mostly grass.
		Sept., 1935	.07	.30	.08	.29	.02	.02	4.5	37.9	1.78	Grass, brown, leafy.
Sebastopol.....	Bethlehem.....	Dec., 1933	.13	.38	.14	1.99	.05	.32	11.1	31.6	4.27	Grass, mainly green.
		Mar., 1934	.11	.27	.15	1.24	.05	.24	5.5	33.4	2.89	Grass, green.
		May, 1934	.046	.29	.11	.58	.01	.11	3.9	36.4	1.75	Grass, mainly brown, long.
		Oct., 1934	.12	.20	.12	1.33	.04	.27	8.4	31.9	2.81	Grass, green.
		Jan., 1935	.097	.26	.13	1.14	.02	.28	6.1	32.7	2.29	Grass, green.
		April, 1935	.11	.32	.12	.78	.06	.14	4.8	34.4	3.38	Grass, mainly green, leafy.
Drakenstein.....	Bethlehem.....	Jan., 1934	.27	.24	.16	2.05	.06	.44	13.0	32.1	4.31	Grass, mainly green, short.
		April, 1934	.098	.31	.14	1.13	.02	.15	6.1	33.3	2.65	Grass, mainly green.
		July, 1934	.057	.31	.08	.11	trace	.02	3.7	35.2	1.29	Grass, brown, leafy.
		Nov., 1934	.09	.19	.09	.95	trace	.20	5.6	35.0	1.88	Grass, mainly green.
		Feb., 1935	.07	.33	.12	1.35	trace	.24	5.2	32.6	2.90	Grass, green, leafy.
		May, 1935	.08	.32	.10	.40	trace	.08	3.8	35.7	1.82	Grass, brown, leafy.
Warsaw.....	Bethlehem.....	Feb., 1934	.12	.23	.14	1.64	.03	.27	9.3	33.1	3.38	Grass, green, short.
		June, 1934	.066	.33	.07	.18	.01	.02	2.7	34.6	1.44	Grass, mainly brown, leafy.
		Sept., 1934	.06	.29	.06	.29	trace	.05	5.5	33.8	1.67	Grass, mainly brown, leafy.
		Dec., 1934	.077	.18	.08	1.09	.04	.17	4.8	37.0	2.13	Grass, mainly green, long.
		Mar., 1935	.10	.38	.11	.81	.02	.11	6.5	35.6	2.44	Grass, green, leafy.

AREA 6 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Driekuil.....	Bethlehem.....	Feb., 1934	.12	.26	.11	1.07	.03	.21	6.9	41.1	2.56	Grass, mainly green.
		Aug., 1934	.05	.28	.08	.09	trace	trace	3.3	41.8	1.18	Grass, brown, leafy.
		Nov., 1934	.14	.25	.10	1.45	trace	.37	8.2	36.1	2.88	Grass, mainly green.
		Mar., 1935	.11	.42	.07	.73	trace	.12	4.3	38.5	2.22	Grass, mainly green.
Grootkloof.....	Ficksburg.....	Dec., 1933	.20	.18	.11	1.67	.04	.30	6.0	34.8	3.59	Grass, green.
		Mar., 1934	.19	.23	.21	1.79	.05	.32	7.4	39.5	3.57	Grass, mainly green.
		June, 1934	.064	.23	.07	.44	.01	.06	4.0	35.4	1.45	Grass, mainly brown.
		Sept., 1934	.095	.31	.05	.41	.02	.06	6.2	33.0	1.67	Grass, mainly brown, leafy.
		Dec., 1934	.11	.28	.10	1.05	trace	.32	7.4	35.4	2.47	Grass, green, leafy.
		April, 1935	.11	.29	.07	.68	trace	.07	4.8	32.3	1.93	Grass.
Tweefontein.....	Ficksburg.....	Jan., 1934	.26	.22	.14	2.15	.05	.41	10.5	36.8	4.53	Grass, green.
		April, 1934	.13	.26	.12	1.31	.03	.20	6.9	34.1	2.86	Grass, mainly green.
		July, 1934	.11	.36	.16	.98	.02	.23	5.7	34.0	2.60	Grass, brown, leafy.
		Oct., 1934	.10	.26	.06	.57	.02	.09	7.4	31.6	1.71	Grass, mainly green, leafy.
		Feb., 1935	.13	.21	.05	.65	trace	.13	5.1	35.9	1.51	Grass.
		May, 1935	.09	.22	.05	.30	trace	.05	4.2	38.0	1.10	Grass, brown.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

## AREA 7.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Sterkspruit, P.O. Amersfoort	Wakkerstroom.	Nov., 1933	.19	.48	.15	1.27	.04	.32	11.8	31.7	3.20	Grass, green, short.
		Feb., 1934	.073	.24	.12	1.88	.03	.32	11.0	38.0	3.14	Grass, mainly green..
		May, 1934	.024	.16	.61	.02	.10	3.4	34.8	2.04	Grass, mainly brown, leafy.	
		Aug., 1934	.024	.29	.11	.13	.01	.01	2.4	38.2	1.26	Grass, brown, leafy.
		Nov., 1934	.14	.35	.22	1.11	.03	.27	8.7	35.3	2.93	Grass, green.
		Feb., 1935	.075	.43	.19	.80	trace	.87	4.5	32.6	2.31	Grass, mainly green.
		May, 1935	.054	.29	.16	.21	trace	.051	2.5	34.4	1.44*	Grass, mainly brown, leafy.
		Sept., 1935	.082	.29	.11	.09	trace	.025	2.1	39.0	1.41	Grass, brown, leafy.
		Dec., 1933	.12	.49	.17	1.02	.03	.23	8.3	35.4	3.00	Grass, green.
		Mar., 1934	.093	.39	.16	.94	.02	.16	5.8	33.7	2.79	Grass, mainly green.
Koppieskraal,P.O. Amersfoort	Wakkerstroom.	June, 1934	.025	.38	.15	.16	.01	.03	4.3	40.1	1.38	Grass, brown, leafy.
		Sept., 1934	.028	.33	.11	.10	trace	.03	3.0	38.7	1.34	Grass, brown, leafy.
		Dec., 1934	.19	.37	.23	.92	.03	.16	7.4	34.4	2.32	Grass, green, leafy.
		Mar., 1935	.077	.31	.13	.77	trace	.10	4.8	35.5	1.91	Grass, green.
		June, 1935	.066	.34	.10	.26	trace	.05	2.7	33.9	1.41	Grass, brown, short.
		Oct., 1935	.037	.39	.04	.19	.02	.02	3.0	35.8	1.54	Grass, brown, short.
		Jan., 1934	.10	.37	.13	.87	.03	.15	—	35.6	2.26	Grass, green.
		April, 1934	.048	.29	.09	.69	.01	.10	6.5	33.2	1.62	Grass, leafy.
		July, 1934	.032	.30	.08	.14	trace	.02	3.9	37.7	1.19	Grass, brown, leafy.
		Oct., 1934	.057	.23	.06	.26	.02	.05	4.1	37.5	1.63	Grass, mainly green, leafy.
Enon,P.O. Amers- foort	Wakkerstroom.	Jan., 1935	.10	.37	.15	1.04	.04	.22	6.2	36.3	2.48	Grass, green.
		April, 1935	.048	.36	.16	.67	.02	.08	3.2	33.6	2.10	Grass, mainly green.
		Aug., 1935	.051	.37	.13	.18	trace	.04	2.8	35.2	1.46	Grass, brown, leafy.
		Nov., 1933	.23	.70	.18	1.91	.03	.48	12.3	32.9	5.48	Grass, mainly green and bush.
		Feb., 1934	.13	.35	.15	1.50	.02	.30	7.8	34.9	3.09	Grass and shrub ; mostly grass.
		May, 1934	.078	.23	.11	.90	trace	.27	5.2	34.7	2.12	Grass.
		Aug., 1934	.10	.32	.18	.63	.01	.06	6.7	35.9	2.11	Grass, brown, leafy.
		Nov., 1934	.088	.26	.09	.61	.02	.18	5.5	31.7	1.75	Grass, mainly brown, short.
		Feb., 1935	.10	.30	.12	1.18	.07	.25	6.7	33.6	2.65	Grass, green, short.
		May, 1935	.084	.31	.08	.48	.02	.08	3.8	33.6	1.57	Grass, leafy.
Buttenzorg No.308	Wakkerstroom.	Aug., 1935	.045	.33	.10	.21	.02	.05	3.1	34.8	1.45	Grass, brown, leafy.
		Dec., 1933	.17	.28	.13	1.61	.05	.35	8.4	35.9	3.37	Grass, mainly green.
		Mar., 1934	.11	.34	.14	.95	trace	.22	5.6	36.8	2.16	Grass, mainly green, short.
		June, 1934	.054	.32	.10	.19	.01	.05	4.3	32.3	1.60	Grass, mainly brown, leafy.
		Sept., 1934	.046	.31	.06	.18	trace	.03	3.6	35.1	1.25	Grass, brown, leafy.
		Dec., 1934	.14	.32	.13	1.39	.03	.22	8.4	33.1	2.83	Grass, green, short.
		Mar., 1935	.12	.33	.12	.75	trace	.08	5.4	34.6	2.07	Grass, mainly green, short.
		June, 1935	.062	.30	.10	.40	trace	.07	3.6	35.7	1.46	Grass, brown, short.
		Sept., 1935	.039	.34	.09	.13	.02	.05	2.7	37.5	1.47	Grass, brown, short.
Driefontein 107	No.	Wakkerstroom.										

## AREA 7 (continued).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	N <sub>a</sub> .	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Mooiplaas No. 17.	Wakkerstroom.	Jan., 1934	.14	.39	.12	.98	.03	.17	7.2	37.8	2.57	Grass, mainly green.
		April, 1934	.17	.43	.13	1.40	.05	.27	7.8	29.3	3.06	Grass, mainly green.
		July, 1934	.067	.41	.21	trace	.03	.3.2	36.3	1.69	3.19	Grass, brown, leafy.
		Oct., 1934	.16	.26	.14	.28	.04	.36	11.7	31.5	1.11	Grass, green, leafy.
		Jan., 1935	.13	.46	.13	1.35	.03	.28	7.8	36.9	3.11	Grass, mainly green; short.
		April, 1935	.081	.34	.12	.66	.08	.09	4.6	32.1	2.01	Grass, brown, leafy.
		July, 1935	.072	.26	.07	.33	trace	.04	2.4	38.6	1.37	Grass, mainly brown, leafy.
		Oct., 1935	.064	.27	.07	.33	.02	.02	4.8	33.4	1.50	Grass, mainly brown, leafy.
Smalkloof, Völkurst	P.O. Wakkerstroom.	Nov., 1933	.17	.23	.13	1.56	trace	.33	8.9	36.2	3.32	Grass, mainly green.
		Feb., 1934	.12	.34	.11	1.12	.01	.16	7.2	34.0	2.81	Grass, mainly green, short.
		May, 1934	.073	.35	.09	.54	.01	.06	3.1	31.7	1.81	Grass, mainly brown, short.
		Aug., 1934	.042	.30	.07	.09	trace	.01	2.8	39.5	1.12	Grass, brown, short.
		Nov., 1934	.14	.33	.11	1.33	trace	.24	7.8	36.3	2.88	Grass, green, leafy.
		Feb., 1935	.066	.28	.07	.63	trace	.17	4.5	37.5	2.10	Grass, mainly green, leafy.
		May, 1935	.068	.29	.12	.25	.01	.08	3.2	30.7	1.34	Grass, mainly brown, short.
		Aug., 1935	.059	.28	.09	.30	trace	.07	2.9	38.4	1.40	Grass, brown, leafy.
Rusthoek, Völkurst	P.O. Wakkerstroom.	Dec., 1933	.20	.27	.13	1.64	.05	.32	8.1	34.6	3.39	Grass, mainly green.
		Mar., 1934	.094	.55	.17	.99	.01	.15	7.9	34.8	3.11	Grass, mainly green short and bush; mostly grass.
		June, 1934	.061	.37	.09	.18	trace	.03	5.0	33.3	1.66	Grass, brown, leafy.
		Sept., 1934	.069	.37	.08	.09	.01	.02	4.4	35.5	1.53	Grass, brown, leafy.
		Dec., 1934	.15	.32	.11	1.34	trace	.24	7.7	35.8	2.74	Grass, green, leafy.
		Mar., 1935	.093	.39	.09	.79	trace	.06	6.4	33.7	2.48	Grass, green, leafy.
		June, 1935	.072	.39	.10	.23	trace	.05	3.3	35.0	1.79	Grass, mainly brown, short.
		Sept., 1935	.039	.42	.06	.10	trace	.03	2.7	34.8	1.70	Grass, brown, leafy.
Rooiwal, Paardekop	Standerton....	Jan., 1934	.16	.41	.15	1.48	.07	.24	10.2	31.6	3.15	Grass, mainly green, short.
		April, 1934	.061	.35	.15	.61	.02	.09	4.2	32.4	1.50	Grass, mainly brown, short.
		July, 1934	.042	.31	.08	.15	trace	.03	3.3	33.0	1.41	Grass, brown, leafy.
		Oct., 1934	.057	.29	.09	.30	.01	.04	6.8	32.2	1.80	Grass, brown, leafy.
		Jan., 1935	.085	.27	.13	.88	.02	.13	5.8	34.3	2.05	Grass, mainly green, leafy.
		April, 1935	.13	.39	.12	.81	.02	.93	6.3	34.7	2.38	Grass, green, short.
		July, 1935	.054	.36	.10	.18	.03	.05	3.2	35.3	1.74	Grass, brown, leafy.
		Oct., 1935	.046	.35	.05	.12	.02	.02	3.5	37.7	1.85	Grass, brown, leafy.
Hamelfontein No. 210	Standerton....	Nov., 1933	.24	.27	.14	2.26	.05	.44	13.9	34.9	4.42	Grass, green.
		Feb., 1934	.16	.31	.15	1.99	.02	.38	11.0	34.8	4.55	Grass, mainly green.
		June, 1934	.048	.17	.04	.01	.01	.02	—	40.1	1.63	Grass, brown, leafy.
		Sept., 1934	.041	.24	.04	.06	trace	.17	2.8	39.8	1.06	Grass, brown, leafy.
		Dec., 1934	.20	.24	.11	1.66	.04	.16	7.8	38.0	3.15	Grass, mainly green.
		Mar., 1935	.082	.30	.09	.97	.02	.22	6.0	34.9	2.49	Grass, mainly brown, leafy.
		June, 1935	.12	.31	.06	.41	trace	.07	3.2	39.2	1.55	Grass, mainly brown, leafy.
		Oct., 1935	.075	.20	.09	.48	.03	.05	4.6	38.2	1.50	Grass, brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Kromdraai No. 16	Standerton....	Dec., 1933	.13	.21	.09	1.34	.05	.29	5.7	31.7	2.77	Grass, mainly brown.
		Mar., 1934	.075	.22	.11	1.07	.04	.21	4.1	38.9	2.03	Grass, mainly brown.
		Aug., 1934	.034	.26	.08	.10	trace	.02	2.9	35.4	1.10	Grass, brown, leafy.
		Nov., 1934	.12	.24	.09	.93	trace	.34	7.5	38.1	2.08	Grass, leafy.
		Feb., 1935	.12	.36	.09	.71	.03	.14	4.6	39.5	2.17	Grass, mainly green, long.
		May, 1935	.036	.17	.07	.11	trace	.03	2.3	41.1	.86	Grass, brown.
		Sept., 1935	.057	.28	.09	.19	.02	.02	3.7	38.5	1.62	Grass, brown, leafy.
Rooikoppen.....	Standerton....	Jan., 1934	.13	.19	.13	1.49	.04	.30	8.0	36.4	2.65	Grass, mainly green.
		April, 1934	.10	.25	.10	.91	.03	.16	3.6	33.5	1.92	Grass.
		May, 1934	.052	.25	.08	.36	.02	.08	1.9	41.0	1.44	Grass, mainly brown.
		July, 1934	.052	.31	.16	.65	.01	.08	3.7	39.1	2.08	Grass, brown, leafy.
		Oct., 1934	—	.22	.12	.50	.02	—	4.0	37.7	1.71	Grass, brown, leafy.
		Jan., 1935	.14	.24	.15	1.85	.05	.39	6.0	36.2	3.56	Grass, mainly green, long.
		April, 1935	.20	.30	.14	.78	.03	.11	4.4	34.6	2.39	Grass, mainly green, long.
		Aug., 1935	.069	.30	.11	.33	.02	.06	2.2	35.8	1.59	Grass, brown, long.
Weltryde, P.O. Greylingstad	Standerton....	Dec., 1933	.18	.20	.11	1.63	.02	.20	8.9	37.0	3.41	Grass, mainly green.
		Mar., 1934	.048	.17	.08	1.00	.01	.16	4.3	42.5	1.94	Grass, long.
		April, 1935	.052	.34	.09	.31	.03	.06	3.9	29.8	2.68	Grass.
Vogelstruisfontein,	Standerton....	Jan., 1934	.25	.38	.19	2.59	.04	.64	10.1	29.3	6.36	Grass, mainly green, leafy.
		May, 1934	.034	.28	.11	.55	trace	.09	3.5	39.8	1.55	Grass, mainly brown, long.
		May, 1935	.088	.33	.10	.45	.03	.06	3.7	35.0	1.70	Grass, brown, leafy.
Grootvlei, P.O. Dirkiesdorp	Wakkertroom..	Mar., 1935	.094	.30	.17	.81	trace	.13	4.6	35.7	2.33	Grass, mainly green.
		July, 1935	.082	.22	.09	.68	.03	.12	2.9	39.8	1.71	Grass, brown.
		Oct., 1935	.049	.31	.09	.28	.03	.07	4.2	33.6	1.64	Grass, mainly brown.
Pypkrabberg.....	Ermelo.....	Dec., 1933	.17	.59	.54	1.90	.11	.48	10.2	32.3	5.40	Grass, mainly green and bush; mostly grass.
		May, 1934	.089	.42	.17	.97	.02	.49	4.3	36.8	2.64	Grass and bush; mostly grass.
		July, 1934	.034	.47	.11	.32	trace	.08	2.8	39.1	1.87	Grass, mainly brown and bush; mostly grass.
		Nov., 1934	.095	.34	.19	.98	.05	.26	4.4	36.9	2.48	Grass, mainly green and bush; mostly grass.
		Feb., 1935	.15	.47	.26	1.72	.05	.62	6.8	37.2	3.98	Grass, mainly green and bush; mostly grass.
		May, 1935	.094	.92	.37	.97	.20	.29	4.8	31.1	4.37	Grass, mainly brown and bush; mostly grass.
		Aug., 1935	.042	.40	.15	.19	trace	.08	2.3	44.7	1.55	Grass, mainly brown and bush; mostly grass.

## AREA 7 (continued).

P. J. DU TOIT, J. G. LOUW AND A. I. MALAN.

Farm,	District,	Date,	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein,	Crude Fibre,	Soluble Ash,	Description of Sample.
Commetjie, P.O. Volksrust	Wakkerstroom..	Feb., 1934	.10	.36	.17	1.32	.07	.36	5.9	36.0	3.12	Grass, mainly green and bushy grass.
		June, 1934	.061	.27	.14	.35	.02	.14	4.5	38.9	1.62	Grass, mainly brown.
		Sept., 1934	.050	.12	.46	.03	.12	4.4	38.0	1.66	Grass, mainly brown.	
		Dec., 1934	.092	.51	.24	1.58	.08	.57	6.2	38.6	3.90	Grass, mainly green and bushy grass.
		Mar., 1935	.091	.34	.16	.62	.11	.21	4.2	37.4	2.14	Grass, mainly green, long.
		June, 1935	.053	.51	.25	.45	.03	.31	3.1	38.6	2.54	Grass, mainly brown.
Confidence.....	Ermelo.....	April, 1934	.15	.29	.13	1.26	.05	.33	5.3	39.6	2.64	Grass, long.
		Aug., 1934	.054	.25	.16	.26	.02	.03	3.5	38.2	1.32	Grass, mainly brown.
		Nov., 1934	.077	.29	.10	.98	.07	.31	4.6	41.8	2.35	Grass, mainly green, long.
		Jan., 1935	.10	.41	.16	.88	.12	.21	7.7	34.1	2.93	Grass, mainly green, short.
		April, 1935	.087	.57	.27	1.21	.03	.22	4.7	38.4	2.77	Grass, mainly green, long.
		July, 1935	.053	.24	.09	.53	.02	.13	2.4	41.4	1.41	Grass, long.
		Sept., 1935	.055	.17	.10	.78	.06	.37	4.0	39.6	1.98	Grass, mainly brown, long.
Vergenoegheid..	Ermelo.....	Dec., 1933	.099	.21	.19	.72	.41	.37	6.9	37.7	2.74	Grass, mainly brown.
		Mar., 1934	.086	.72	.38	1.15	.16	.28	7.2	33.5	3.99	Grass and bush; mostly grass.
		May, 1934	.11	—	.20	1.17	.09	.63	7.9	34.7	3.01	Grass, mainly green.
		Aug., 1934	.083	.28	.20	.75	.12	.33	5.3	37.7	2.38	Grass, mainly brown.
		Nov., 1934	.15	.30	.21	1.80	.08	.56	12.6	33.4	3.87	Grass, green.
		Feb., 1935	.19	.37	.32	2.76	.03	.55	11.6	32.9	5.38	Grass, green.
		May, 1935	.072	.26	.14	.41	.03	.09	4.3	36.7	1.80	Grass, mainly brown.
		Aug., 1935	.064	.25	.14	.51	.04	.15	4.4	37.7	2.18	Grass, mainly brown.
Orangeval.....	Ermelo.....	Jan., 1934	.16	.26	.30	1.61	.13	.34	9.5	37.1	3.43	Grass, mainly green.
		June, 1934	.11	.31	.25	1.34	.13	.44	7.4	35.8	3.43	Grass.
		Dec., 1934	.22	.35	.29	2.21	.06	.54	11.8	36.2	4.86	Grass, green.
		Mar., 1935	.097	.36	.27	1.78	.03	.38	6.6	39.8	3.90	Grass, leafy.
		June, 1935	.11	.32	.21	.66	.01	.12	5.1	37.1	2.32	Grass, leafy.
		Sept., 1935	.091	.26	.16	.74	.04	.26	5.4	42.8	2.23	Grass, mainly green.
Witkem, Mahamba P.O.	Zwasland.....	Feb., 1934	.14	.36	.27	1.74	.11	.58	6.4	34.4	3.98	Grass, mainly green.
		April, 1934	.12	.32	.21	1.30	.12	.68	6.9	34.9	3.08	Grass, mainly green.
		July, 1934	.061	.30	.17	.67	.04	.18	4.3	38.0	2.04	Grass, mainly brown, long.
		Oct., 1934	.14	.25	.23	1.43	.27	.76	8.6	37.0	4.04	Grass, mainly green.
		Jan., 1935	.14	.29	.32	2.29	.07	.54	10.7	35.8	4.70	Grass, green.
		April, 1935	.079	.45	.30	1.38	.08	.37	6.2	34.0	3.77	Grass.
		Oct., 1935	.056	.21	.19	.84	.07	.29	5.4	41.5	2.49	Grass.
Nootgedacht No. 10	Ermelo.....	Nov., 1933	.12	.26	.11	1.16	.01	.29	7.9	35.6	3.34	Grass, mainly green.
		July, 1934	.036	.29	.09	.14	trace	.03	2.7	35.9	1.40	Grass, brown, leafy.
		Oct., 1934	.052	.23	.08	.26	.02	.05	3.5	38.2	1.32	Grass, mainly brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

 AREA 7 (*continued*)

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Pro- tein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.
Withbank No. 99. Amsterdam	Ermelo.....	Aug., 1934	.036	.28	.12	.19	.01	.03	3.4	38.2	1.43	Grass, brown, leafy.
		Dec., 1934	.12	.23	.09	1.25	.04	.19	8.5	36.3	2.60	Grass, leafy.
		Mar., 1935	.069	.44	.08	.57	trace	.09	3.7	32.8	2.12	Grass, mainly green, leafy.
		June, 1935	.062	.35	.10	.32	trace	.08	2.9	34.4	1.70	Grass, brown, leafy.
		Oct., 1935	.083	.48	.16	.24	.01	.04	3.4	32.9	2.22	Grass, brown, leafy.
Merrickloof, P.O. Amsterdam	Ermelo.....	Nov., 1933	.062	.10	.07	.77	.02	.15	6.0	35.8	2.10	Grass, mainly green.
		Feb., 1934	.092	.15	.12	1.52	.02	.30	5.1	39.3	2.69	Grass, mainly green.
		May, 1934	.032	.57	.17	.57	.01	.13	2.5	36.8	1.86	Grass, mainly brown.
		Aug., 1934	.044	.23	.12	.20	trace	.02	4.0	44.0	1.17	Grass, brown.
		Nov., 1934	.11	.29	.14	1.55	trace	.27	8.9	32.3	3.19	Grass, green, short.
		Feb., 1935	.11	.17	.06	1.66	trace	.36	6.3	38.2	2.95	Grass, green.
		May, 1935	.06	.17	.09	1.08	.05	.20	4.4	40.2	2.11	Grass, mainly green, long.
		Sept., 1935	.041	.15	.07	.27	.05	.06	3.1	43.5	1.30	Grass, brown, long.
		Dec., 1933	.12	.17	.13	1.97	.03	.39	9.2	42.0	3.87	Grass, mainly green.
		Mar., 1934	.11	.22	.11	1.08	.02	.17	4.4	41.5	2.15	Grass, mainly green, long.
The Chinc, P.O. Amsterdam	Ermelo.....	June, 1934	.053	.18	.10	.62	.02	.11	4.3	38.5	1.80	Grass, mainly brown.
		Sept., 1934	.034	.19	.10	.77	trace	.03	2.8	39.9	1.09	Grass, mainly brown.
		April, 1935	.053	.18	.10	.77	.03	.17	3.8	36.1	1.73	Grass, mainly green, long.
		July, 1935	.052	.18	.10	.33	trace	.10	2.6	40.0	1.61	Grass, brown, long.
		Aug., 1935	.074	.30	.08	.35	.02	.08	3.8	40.6	2.04	Grass, brown, leafy.
Stafford.....	Ermelo.....	Jan., 1934	.10	.18	.13	1.50	trace	.24	5.9	43.7	3.37	Grass, mainly green.
		April, 1934	.079	.16	.14	1.28	.04	.22	5.7	37.6	2.17	Grass, mainly green.
		July, 1934	.029	.16	.09	.44	trace	.10	3.3	41.9	1.20	Grass, brown.
		Oct., 1934	.062	.14	.07	.55	.01	.13	5.4	37.6	1.54	Grass, mainly green.
		Jan., 1935	.084	.20	.16	1.51	trace	.25	6.7	35.8	2.70	Grass, green.
Ndhlorudwalle, P.O. Amsterdam	Ermelo.....	June, 1935	.038	.16	.08	.42	trace	.05	2.3	41.4	1.12	Grass, brown.
		Oct., 1935	.057	.11	.04	.31	trace	.04	4.8	40.4	1.14	Grass, mainly brown.
		Nov., 1933	.063	.15	.06	.55	.02	.17	6.2	37.5	2.34	Grass, mainly green.
		Feb., 1934	.11	.21	.15	1.22	trace	.27	6.8	36.8	2.56	Grass, mainly green, short.
		May, 1934	.044	.16	.11	.68	.01	.13	3.5	35.3	1.55	Grass, mainly brown, short.
Amsterdam (Town)	Ermelo.....	Aug., 1934	.033	.23	.12	.11	trace	.01	2.7	34.4	1.13	Grass, brown, leafy.
		Nov., 1934	.11	.22	.14	1.39	trace	.31	8.7	35.1	2.82	Grass, green, short.
		Dec., 1933	.10	.31	.15	1.25	.04	.33	8.0	35.6	3.26	Grass, mainly green.
		Mar., 1934	.083	.40	.16	1.16	.02	.26	7.1	35.5	3.11	Grass, mainly green, short.
		June, 1934	.041	.49	.11	.47	.02	.14	2.8	34.1	2.01	Grass, mainly brown, leafy.
Amsterdam	Ermelo.....	Sept., 1934	.064	.35	.09	.40	trace	.09	5.0	36.2	2.01	Grass, mainly brown, leafy.
		Dec., 1934	.098	.48	.13	1.24	.09	.36	7.5	35.1	3.05	Grass, green, short.
		Feb., 1935	.082	.25	.14	1.01	trace	.15	4.8	35.6	2.47	Grass, mainly green, short.
		May, 1935	.06	.35	.18	.62	trace	.22	3.6	37.1	2.15	Grass, short.
		Aug., 1935	.038	.34	.09	.21	.02	.08	3.2	39.2	1.85	Grass, brown, short.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Steenboskruin No. 88, P.O. Bankop	Ermelo, . . . . .	Jan., 1934	.09	.22	.12	.36	.02	.26	6.0	36.2	2.65	Grass, mainly green.
		April, 1934	.059	.24	.11	.73	trace	.20	5.1	33.0	2.04	Grass, short.
		July, 1934	.034	.25	.08	.13	.01	.03	2.8	36.7	1.24	Grass, brown, leafy.
		Oct., 1934	.17	.46	.21	.53	.11	.50	7.7	29.4	4.25	Grass, mainly green and bush.
Hereford No. 223 P.O. The Brook	Ermelo, . . . . .	Jan., 1935	.088	.21	.15	.18	.02	.23	5.3	34.9	2.78	mostly grass.
		April, 1935	.083	.33	.16	.81	trace	.21	6.0	34.4	2.70	Grass, mainly green, short.
		Oct., 1935	.077	.41	.15	.34	.08	.13	5.5	34.9	2.91	Grass, leafy.
		Nov., 1934	.095	.16	.04	.02	.02	.26	6.9	32.2	2.79	Grass, mainly brown, short.
		Feb., 1934	.096	.18	.11	.28	.02	.27	8.2	39.8	2.76	Grass, mainly green, short.
		May, 1934	.045	.23	.07	.68	.02	.21	4.6	34.5	1.56	Grass, short.
		Aug., 1934	.051	.32	.09	.17	trace	.02	2.9	36.3	1.31	Grass, mainly brown.
		Nov., 1934	.10	.17	.12	.42	trace	.36	10.0	32.4	2.74	Grass, green, short.
Meadow Bank, P.O. The Brook	Ermelo, . . . . .	Dec., 1933	.11	.16	.13	.77	.04	.58	9.5	34.9	3.91	Grass, short.
		Mar., 1934	.10	.25	.13	.23	.32	.40	6.9	33.8	3.22	Grass, mainly green, short.
		June, 1934	.034	.14	.07	.27	.01	.07	3.3	36.5	1.36	Grass, mainly brown, short.
		Sept., 1934	.10	.11	.09	.18	.03	.27	8.0	—	2.37	Grass, mainly green, short.
		Dec., 1934	.13	.20	.11	.82	.05	.38	10.4	30.7	2.98	Grass, green, short.
Wavelky, P.O. The Brook	Ermelo, . . . . .	Mar., 1934	.091	.27	.15	.19	.02	.23	6.0	36.5	2.65	Grass, mainly green, short.
		April, 1934	.11	.27	.13	.15	.04	.22	4.8	38.9	2.45	Grass, short.
		July, 1934	.045	.30	.13	.39	trace	.04	2.9	38.8	1.76	Grass, brown, leafy.
		Oct., 1934	.078	.27	.10	.68	.03	.14	5.0	32.1	1.71	Grass, mainly green, leafy.
Simonsdal No. 162, P.O. Lake Chrissie	Ermelo, . . . . .	Nov., 1933	.24	.25	.09	.10	.01	.41	10.2	33.0	4.17	Grass, mainly green.
		Feb., 1934	.10	.24	.13	.00	.09	.51	7.4	33.9	3.04	Grass, mainly green.
Grasdal P.O. Lake Chrissie	Ermelo, . . . . .	Dec., 1933	.11	.27	.15	.78	.04	.40	8.5	35.9	3.78	Grass, mainly green and bush.
Fernie Hough No. 189	Ermelo, . . . . .	Mar., 1934	.069	.28	.14	.95	.02	.27	5.6	32.6	2.26	Grass, mainly green.
Houthbos, P.O. Os-hoek	Ermelo, . . . . .	Jan., 1934	.11	.17	.12	.71	.05	.43	7.8	35.6	3.18	Grass, mainly green.
		April, 1934	.14	.36	.14	.91	.04	.28	4.4	33.3	2.19	Grass, leafy.
Nakensvlei, . . . . .	Belfast, . . . . .	Nov., 1933	.13	.17	.12	.31	.05	.35	9.9	33.9	3.34	Grass, mainly green.
		Feb., 1934	.10	.35	.17	.44	.13	.44	5.9	35.1	3.50	Grass, mainly green.
		May, 1934	.039	.32	.37	.19	.35	.04	14.9	27.4	5.30	Grass, green.
		Feb., 1934	.09	.34	.30	.59	.02	.50	9.1	33.3	3.75	Grass, mainly green.
		Nov., 1934	.16	.31	.20	.54	.04	.55	9.6	35.1	4.16	Grass, green, long.
		Feb., 1935	.094	.23	.11	.97	.03	.24	6.0	34.2	2.19	Grass, green.
		May, 1935	.064	.27	.16	.47	trace	.09	3.7	32.8	1.81	Grass, leafy.
		Aug., 1935	.055	.29	.12	.24	trace	.11	3.3	35.3	1.64	Grass, brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Steynsplaas . . . . .	Belfast . . . . .	Dec., 1933	.20	.25	.16	.27	.03	.52	10.2	36.2	5.02	Grass, mainly green.
		Mar., 1934	.15	.32	.15	1.42	.02	.35	7.7	34.0	3.15	Grass, mainly green.
		June, 1934	.05	.26	.12	.35	.01	.05	3.6	36.4	1.62	Grass, mainly brown, leafy.
		Dec., 1934	.15	.27	.15	1.93	.04	.04	10.8	34.9	4.24	Grass, mainly green.
		Mar., 1935	.10	.28	.14	1.01	.08	.24	6.4	34.9	2.54	Grass, mainly leafy.
		June, 1935	.088	.39	.15	.46	.02	.16	3.3	36.6	2.09	Grass, mainly brown leafy.
		Sept., 1935	.034	.33	.11	.15	.06	.04	3.0	37.0	1.71	Grass, brown, leafy.
Voskuilspoort . . . . .	Belfast . . . . .	Jan., 1934	.11	.34	.23	1.65	.05	.50	9.1	33.3	4.18	Grass, green and bush; mostly grass.
		April, 1934	.081	.41	.29	1.40	trace	.32	4.1	34.3	3.35	Grass, mainly green, short and bush; mostly grass.
		July, 1934	.048	.27	.10	.31	.01	.03	3.6	35.4	1.43	Grass, mainly brown, leafy.
		Jan., 1935	.094	.32	.24	1.28	.03	.45	7.8	34.8	3.65	Grass, green, short.
		April, 1935	.074	.23	.13	.68	.02	.15	3.9	34.1	2.16	Grass, mainly green, leafy.
		July, 1935	.052	.28	.10	.19	.01	.07	3.4	38.4	1.56	Grass, brown, leafy and bush; mostly grass.
		Oct., 1935	.033	.20	.03	.18	trace	.02	4.0	30.0	1.48	Grass, brown, leafy.
Paardeplaats . . . . .	Carolina . . . . .	Nov., 1933	.19	.19	.13	1.75	.07	.40	12.2	32.2	3.65	Green, green, leafy.
		Feb., 1934	.10	.25	.14	1.77	.05	.23	7.5	31.2	2.78	Grass, mainly green, short.
		May, 1934	.058	.24	.14	.62	.01	.13	5.8	30.2	2.06	Grass, mainly brown, short.
		Aug., 1934	.040	.20	.09	.12	trace	.03	3.7	31.8	1.14	Grass, brown, short.
		Nov., 1934	.17	.20	.14	1.68	trace	.23	11.5	32.0	3.17	Grass, green, short.
		Feb., 1935	.12	.22	.08	1.12	trace	.18	7.0	31.0	2.30	Grass, green, short.
Buffelspruit, P/b Hillside Store	Carolina . . . . .	Dec., 1933	.13	.40	.16	2.10	.05	.46	10.5	32.0	4.07	Grass, green.
		Mar., 1934	.12	.39	.14	1.17	.02	.29	8.0	27.8	3.01	Grass, mainly green, short.
		June, 1934	.052	.31	.08	.32	trace	.04	3.3	33.4	1.50	Grass, mainly brown, leafy.
		Sept., 1934	.19	.37	.16	1.98	.07	.38	11.7	28.2	3.67	Grass, green, short.
		Dec., 1934	.11	.38	.12	1.36	trace	.24	8.2	33.3	2.96	Grass, green, leafy.
		Mar., 1935	.094	.34	.10	.76	trace	.17	5.6	36.7	2.18	Grass, green, leafy.
Kranspan . . . . .	Carolina . . . . .	Jan., 1934	.16	.31	.17	1.28	.01	.19	8.3	35.4	3.19	Grass, green, leafy.
		April, 1934	.087	.41	.19	.63	.02	.14	5.8	29.6	2.59	Grass, mainly green, short.
		July, 1934	.061	.28	.12	.16	trace	.03	3.3	31.4	1.28	Grass, brown, leafy.
		Oct., 1934	.12	.30	.14	1.27	.03	.22	8.0	29.2	2.86	Grass, green, short.
		Jan., 1935	.11	.20	.15	1.45	.03	.32	7.7	36.2	2.66	Grass, green, short.
		April, 1935	.088	.30	.14	.53	trace	.09	5.0	30.3	2.14	Grass, mainly green, short.
Doornhoek No. 241, P.O. Water- val Boven	Carolina . . . . .	Nov., 1933	.18	.31	.16	1.56	.04	.35	11.5	35.4	3.40	Grass, green, leafy.
		Feb., 1934	.15	.23	.16	1.13	.20	.14	5.2	36.4	2.45	Grass, mainly green.
		May, 1934	.041	.24	.12	.37	.01	.06	2.6	37.5	1.33	Grass, mainly brown, long.
		Aug., 1934	.062	.28	.14	.28	.01	.03	2.8	37.8	1.46	Grass, mainly brown.
		Nov., 1934	.084	.22	.09	.55	trace	.13	4.0	38.0	1.56	Grass, mainly green.
		Sept., 1935	.069	.24	.04	.26	.02	.02	2.5	41.3	1.19	Grass, brown.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Van Wyk'slei No. 96	Carolina.....	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934 Dec., 1934 Mar., 1935 Aug., 1935	.10 .11 .029 .054 .10 .25 .089 .036	.24 .25 .21 .08 .25 .15 .10 .27	.15 .13 .08 .08 .24 .15 .85 .13	.13 .17 .24 .27 .07 .02 .02 .28	.04 .02 .01 .02 .02 .07 .02 .04	.27 .29 .03 .03 .34 .15 .15 .07	.8·2 6·0 4·9 5·7 2·1 8·1 5·5 .07	.35·3 35·0 35·9 35·3 2·1 31·5 35·3 2·9	.2·57 2·38 1·24 1·26 2·53 1·90 3·53 1·51	Grass, mainly green. Grass, brown, leafy. Grass, mainly brown. Grass, green. Grass, mainly green, leafy. Grass, brown, leafy.
Weltevreden No. 254, Via Hen-drina	Carolina.....	Jan., 1934 April, 1934 July, 1934 Oct., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.14 .083 .030 .077 .14 .032 .064 .066	.23 .31 .20 .10 .09 .21 .16 .10	.19 .20 .13 .30 .57 .36 .73 .21	.174 .03 .03 .01 .05 .02 .02 .02	.03 .03 .01 .trace .05 .02 .02 .02	.31 .25 .3·2 .13 .43 .15 .10 .02	.7·9 6·5 3·2 5·2 9·5 4·0 — 3·9	.39·7 35·2 37·5 34·7 35·9 31·3 35·6 38·2	.3·62 2·88 1·39 1·39 4·32 1·97 1·60 1·54	Grass. Grass, mainly brown, leafy. Grass, green, long. Grass, green, leafy. Grass, long. Grass, brown, leafy. Grass, brown, leafy.
Heweltwop.....	Nelspruit.....	Nov., 1933 Feb., 1934 May, 1934 Aug., 1934	.11 .095 .085 .086	.31 .25 .17 .26	.14 .17 .18 .12	.166 .30 .88 .60	.03 .03 .02 .03	.39 .42 .22 .17	.9·9 6·8 5·0 3·9	.31·0 32·8 33·7 36·0	.3·41 2·81 2·82 1·92	Grass, green, short. Grass, mainly green, short. Grass, mainly brown, short. Grass, mainly brown.
The Rest.....	Nelspruit.....	Dec., 1933 Mar., 1934 June, 1934 Oct., 1934 June, 1935 Oct., 1935	.13 .096 .051 .055 .071 .084	.32 .25 .12 .13 .23 .26	.20 .16 .12 .13 .09 .08	.176 .19 .55 .36 .66 .03	.04 .04 .02 .02 .05 .05	.50 .31 .21 .14 .09 .27	.— 6·7 3·7 3·5 3·0 5·8	.31·7 33·9 37·1 37·5 43·9 43·8	.3·98 2·97 1·93 1·69 1·74 2·39	Grass, mainly green, short. Grass, mainly green, short. Grass, mainly brown, short. Grass, short. Grass, mainly brown. Grass, mainly green.
Cromdale No. 82.	Nelspruit.....	Jan., 1934 April, 1934 July, 1934 Sept., 1934 June, 1935 Sept., 1935	.11 .073 .057 .058 .09 .097	.33 .31 .30 .28 .28 .33	.18 .14 .11 .09 .16 .16	.1·31 .89 .29 .27 .39 .69	.10 .02 .02 .02 .13	.38 .25 .21 .14 .44 .26	.6·1 4·6 4·0 3·5 4·8 5·0	.32·8 35·8 37·0 36·5 36·7 37·4	.3·03 2·38 1·58 1·50 2·20	Grass, mainly green, short. Grass, short. Grass, mainly brown. Grass, mainly brown, short. Grass, mainly brown.
White River.....	Nelspruit.....	Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 Feb., 1935 May, 1935 July, 1935	.12 .048 .032 .08 .10 .04 .059	.27 .22 .26 .23 .25 .24 .25	.15 .13 .16 .16 .20 .13 .07	.1·86 .88 .26 .08 .59 .30 .27	.05 .02 .01 .04 .04 .01 .02	.41 .23 .04 .23 .31 .07 .10	.7·2 3·7 3·2 3·7 5·7 2·8 2·6	.39·0 40·3 39·2 35·7 37·6 35·6 40·6	.4·05 2·03 1·44 2·47 3·28 1·55 1·32	Grass and bush; mostly grass. Grass, mainly brown. Grass, mainly green, leafy. Grass, mainly green, leafy. Grass, brown, leafy. Grass, mainly brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Pro- tein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.
Kockmeiersrust, P.O. White River	Nelspruit, . . . . .	Dec., 1933	.18	.36	.17	.29	.04	.46	10.8	33.4	5.26	Grass, mainly green, mostly grass.
		Mar., 1934	.10	.39	.18	.23	.03	.22	7.1	37.2	3.26	Grass and bush; mostly brown.
		June, 1934	.069	.25	.10	.49	trace	.12	3.1	37.1	1.80	Grass, mainly brown.
		Sept., 1934	.068	.29	.16	.68	trace	.12	4.8	38.2	2.10	Grass, mainly brown.
		Dec., 1934	.13	.36	.17	.15	.05	.65	8.1	34.4	5.30	Grass, mainly green, leafy.
		Mar., 1935	.095	.43	.14	.88	trace	.21	4.5	35.8	2.95	Grass, mainly green, leafy.
		June, 1935	.078	.23	.12	.70	.03	.26	3.5	40.9	2.14	Grass, brown, short.
		Sept., 1935	.052	.21	.13	.52	.04	.22	3.5	38.6	1.85	Grass, brown, short.
		Jan., 1934	.16	.38	.17	.14	.08	.48	7.3	37.8	4.33	Grass, mainly green and bush; mostly grass.
		April, 1934	.065	.32	.16	.71	.03	.20	4.7	39.8	2.05	Grass and bush; mostly grass, mainly brown and bush;
Sukkert, P.O. White River	Nelspruit, . . . . .	July, 1934	.049	.54	.14	.61	trace	.15	3.6	38.6	2.52	Grass, mainly brown and bush; mostly grass.
		Oct., 1934	.055	.38	.13	.51	.02	.07	4.2	43.7	1.86	Grass, mainly brown and bush.
		Jan., 1935	.11	.21	.13	.55	.04	.35	6.2	37.5	3.06	Grass, mainly green, leafy.
		April, 1935	.077	.41	.18	.57	.05	.22	5.1	33.4	2.51	Grass, brown, leafy.
		Aug., 1935	.057	.30	.14	.53	trace	.13	2.6	42.7	1.61	Grass, brown, leafy.
		Jan., 1935	.16	.24	.11	.91	.04	.21	4.2	43.2	2.21	Grass, mainly green.
		April, 1935	.081	.28	.11	.74	.02	.13	3.3	37.4	1.92	Grass, leafy.
Mara, P.O. Krokodilpoort	Nelspruit, . . . . .	July, 1935	.097	.47	.14	.80	.11	.27	4.8	38.6	2.62	Grass, leafy.
		Oct., 1935	.06.9	.32	.11	.35	.03	.03	3.5	39.9	1.63	Grass, brown, leafy.
		Sept., 1934	.094	.27	.11	.71	.06	.20	6.1	35.3	2.59	Grass, mainly green.
		Dec., 1934	.11	.26	.15	.18	.04	.45	8.2	37.3	3.83	Grass, mainly green, leafy.
		Mar., 1935	.089	.40	.15	.04	.03	.17	5.9	38.1	2.61	Grass, mainly green, leafy.
Eerstegeelkruk . . .	Nelspruit, . . . . .	June, 1935	.10	.44	.14	.44	trace	.15	3.4	35.9	1.93	Grass, mainly green, leafy.
		Sept., 1935	.064	.38	.17	.48	.05	.20	4.5	36.4	1.91	Grass, brown, leafy.
		Dec., 1933	.11	.22	.17	.75	.03	.38	8.7	33.7	3.78	Grass, mainly green.
		Mar., 1934	.074	.24	.24	.73	.03	.22	5.6	39.6	2.25	Grass, mainly green.
		June, 1934	.047	.26	.07	—	.01	.03	4.2	35.8	1.62	Grass, mainly brown, leafy.
Peebles, P.O. White River	Nelspruit, . . . . .	Sept., 1934	.069	.41	.12	.47	.02	.15	5.3	34.9	1.53	Grass, mainly brown, leafy.
		Dec., 1934	.13	.24	.15	.57	.04	.32	7.8	36.1	3.11	Grass, mainly green, leafy.
		Mar., 1935	—	.25	.15	.93	trace	—	5.9	35.4	4.71	Grass, green, leafy.
		July, 1935	.065	.27	.15	.38	.03	.10	3.9	36.0	1.50	Grass, leafy.
		Oct., 1935	.070	.26	.09	.38	.02	.07	4.7	36.1	1.82	Grass, mainly brown, leafy.
		Jan., 1934	.12	.29	.13	.69	.22	.43	6.8	41.9	3.65	Grass, mainly green.
		April, 1934	.10	.36	.51	.08	trace	.25	6.8	36.8	2.63	Grass, mainly green, leafy.
De Rust, P.O. White River	Nelspruit, . . . . .	July, 1934	.05	.45	.11	.45	.02	.07	3.8	34.9	1.89	Grass, mainly brown, leafy.
		Oct., 1934	.058	.32	.10	.32	.02	.12	4.2	33.7	1.50	Grass, leafy.
		Feb., 1935	.11	.28	.13	.14	.05	.27	5.9	34.1	2.71	Grass, green, leafy.
		May, 1935	.12	.38	.25	.11	.02	.23	7.7	33.0	3.01	Grass, mainly green, leafy.
		Aug., 1935	.078	.36	.15	.44	.02	.12	3.4	38.3	1.70	Grass, brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 7 (*continued*).

Farm,	District,	Date,	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein,	Crude Fibre,	Soluble Ash.	Description of Sample.
Koekemoersrust, P.O. White River	Nelspruit.....	Dec., 1933	.18	.36	.17	.2·29	.04	.46	10·8	.33·4	5·26	Grass, mainly green.
		Mar., 1934	.10	.39	.18	.1·23	.03	.22	7·1	.37·2	3·26	Grass and bush; mostly grass.
		June, 1934	.069	.25	.10	.49	trace	.12	3·1	.37·1	1·80	Grass, mainly brown.
		Sept., 1934	.068	.29	.16	.68	trace	.12	4·8	.38·2	2·10	Grass, mainly brown.
		Dec., 1934	.13	.36	.17	.2·15	.05	.66	8·1	.34·4	5·30	Grass, mainly green, leafy.
	Sukkel, P.O. White River	Mar., 1935	.095	.43	.14	.88	trace	.21	4·5	.35·8	2·95	Grass, mainly green, leafy.
		June, 1935	.078	.23	.12	.70	.03	.26	3·5	.40·9	2·14	Grass, short.
		Sept., 1935	.052	.21	.13	.52	.04	.22	3·5	.38·6	1·85	Grass, brown, short.
		Jan., 1934	.16	.38	.17	1·74	.08	.48	7·3	.37·8	4·33	Grass, mainly green and bush;
		April, 1934	.065	.32	.16	.71	.03	.20	4·7	.39·8	2·05	mostly grass.
Mara, P.O. Krookdilpoort	Nelspruit.....	July, 1934	.049	.54	.14	.61	trace	.15	3·6	.38·6	2·52	Grass, mainly brown and bush;
		Oct., 1934	.055	.38	.13	.51	.02	.07	4·2	.43·7	1·86	mostly grass.
		Jan., 1935	.11	.21	.13	1·55	.04	.35	6·2	.37·5	3·06	Grass, mainly brown and bush.
		April, 1935	.077	.41	.18	.57	.05	.22	5·1	.33·4	2·51	Grass, leafy.
		Aug., 1935	.057	.30	.14	.53	trace	.13	2·6	.42·7	1·61	Grass, brown.
	Eerstegeluk.....	Jan., 1935	.16	.24	.11	.91	.04	.21	4·2	.43·2	2·21	Grass, mainly green.
		April, 1935	.081	.28	.11	.74	.02	.13	3·3	.37·4	1·92	Grass, leafy.
		July, 1935	.097	.47	.14	.80	.11	.27	4·8	.38·6	2·62	Grass, leafy.
		Oct., 1935	.069	.32	.11	.35	.03	.06	3·5	.39·9	1·63	Grass, brown, leafy.
		Sept., 1934	.094	.27	.11	.71	.06	.20	6·1	.35·3	2·59	Grass.
Peebles, P.O. White River	Nelspruit.....	Dec., 1934	.11	.26	.15	2·18	.04	.45	8·2	.37·3	3·83	Grass, mainly green, leafy.
		Mar., 1935	.089	.40	.15	1·04	.03	.17	5·9	.38·1	2·61	Grass, mainly green.
		June, 1935	.10	.44	.14	.44	trace	.15	3·4	.35·9	1·96	Grass, mainly green, leafy.
		Sept., 1935	.064	.38	.17	.48	.05	.20	4·5	.36·4	1·91	Grass, brown, leafy.
		Dec., 1933	.11	.22	.17	1·75	.03	.38	8·7	.33·7	3·75	Grass, mainly green.
	De Rust, P.O. White River	Mar., 1934	.074	.24	.24	.73	.03	.22	5·6	.39·6	2·25	Grass, mainly green.
		June, 1934	.047	.26	.07	—	.01	.06	4·2	.35·8	1·62	Grass, mainly brown, leafy.
		Sept., 1934	.060	.41	.12	.47	.02	.15	5·3	.34·9	1·53	Grass, mainly green, leafy.
		Dec., 1934	.13	.24	.15	1·57	.04	.32	7·8	.36·1	3·11	Grass, mainly green, leafy.
		Mar., 1935	—	.25	.15	.90	trace	—	5·9	.35·4	4·71	Grass, green, leafy.
248	Nelspruit.....	July, 1935	.065	.27	.15	.38	.03	.10	3·9	.36·0	1·50	Grass, leafy.
		Oct., 1935	.070	.26	.09	.38	.02	.07	4·7	.36·1	1·82	Grass, mainly brown, leafy.
		Jan., 1934	.12	.29	.13	1·69	.22	.43	6·8	.41·9	3·65	Grass, mainly green.
		April, 1934	.10	.36	.51	1·08	trace	.25	6·8	.36·8	2·63	Grass, mainly green, leafy.
		July, 1934	.05	.45	.11	.45	.02	.07	3·8	.34·9	1·89	Grass, mainly brown, leafy.
Peebles, P.O. White River	Nelspruit.....	Oct., 1934	.058	.32	.10	.32	.02	.12	4·2	.33·7	1·50	Grass, mainly green, leafy.
		Feb., 1935	.11	.28	.13	1·14	.05	.27	5·9	.34·1	2·71	Grass, green, leafy.
		May, 1935	.12	.38	.25	1·11	.02	.26	7·7	.33·0	3·01	Grass, mainly green, leafy.
		Aug., 1935	.078	.36	.15	.44	.02	.12	3·4	.38·3	1·70	Grass, brown, leafy.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Hampton, P.O. White River	Nelspruit, . . . . .	Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 Jan., 1935 April, 1935 June, 1935 Sept., 1935	.13 .043 .049 .20 .11 .077 .056 .047	.22 .28 .28 .27 .25 .36 .28 .49	.18 .24 .11 .19 .19 .14 .13 .17	1.25 .50 .23 .14 .46 .69 .34 .28	.02 .02 trace trace .46 .03 .15 .07	.29 .15 .03 .46 .10.7 .33 .6.5 .07	.5.9 3.4 3.6.2 32.8 34.7 4.3 33.5 39.7	36.5 36.6 32.8 4.15 2.86 2.29 1.59 37.8	2.70 1.86 1.39 4.15 2.86 2.29 1.59 2.13	Grass, mainly green. Grass, leafy. Grass, mainly brown, leafy. Grass, green, leafy. Grass, mainly green, leafy. Grass, mainly brown, leafy. Grass, brown, leafy.
Schagen No. 134.	Nelspruit, . . . . .	Jan., 1934 June, 1934 Sept., 1934 Feb., 1935 May, 1935 Aug., 1935	.19 .085 .068 .13 .11 .084	.23 .39 .58 .24 .19 .19	.17 .20 .15 .14 .19 .19	1.71 .66 .51 .53 .65 .65	.04 .01 .02 .04 .04 .04	.39 .11 .07 .23 .23 .15	11.9 4.3 5.3 5.4 4.7 3.6.9	37.9 36.4 38.3 34.8 34.8 44.5	3.96 2.58 2.08 2.99 2.93 2.22	Grass, mainly green. Grass, mainly brown. Grass, mainly brown. Grass, mainly green. Grass, mainly green. Grass, brown.
Rooival No. 132. P.O. Brondal	Nelspruit, . . . . .	May, 1934 Aug., 1934 Nov., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.05 .06 .10 .088 .12 .32 .40	.23 .27 .19 .24 .32 .18 .41	.11 .14 .13 .16 .15 .18 .15	1.03 .34 .49 .61 .25 .25 .12	.03 trace trace .06 .04 .29 .62	.22 .04 .31 .36 .29 .11 .28	3.8 3.4 7.0 5.4 3.6.9 4.5 6.7	39.6 38.1 37.3 37.8 36.9 35.3 35.6	2.40 1.44 2.85 2.28 3.11 2.23 3.19	Grass, mainly brown. Grass, mainly brown. Grass, green. Grass, mainly green. Grass, mainly green. Grass, mainly brown. Grass, mainly brown, leafy.
249 Friedenreich, . . . . .	Nelspruit, . . . . .	July, 1934 Oct., 1934 Mar., 1935	.051 .054 .15	.32 .24 .34	.16 .09 .19	.54 .31 .38	.01 .03 .07	.09 .08 .45	3.6 3.6 5.1	37.7 40.7 38.6	1.66 1.50 3.46	Grass, mainly brown. Grass, brown. Grass, mainly green, leafy.
Grootveld No. 116 P.O. Godwan River	Nelspruit, . . . . .	Dec., 1933 April, 1934 Aug., 1934 Sept., 1934 April, 1935 July, 1935 Oct., 1935	.15 .15 .25 .13 .089 .12 —	.34 .27 .16 .22 .28 .34 .39	.16 .14 .14 .11 .17 .11 .20	1.76 .02 .34 .85 .58 .64 .63	.03 .02 .02 .02 .04 .01 .21	.45 .39 .07 .— .18 .16 .—	7.4 4.8 3.3 6.8 4.0 .34 .5.1	34.1 35.7 35.6 34.7 37.2 39.0 34.4	3.54 2.77 2.58 2.31 2.20 1.94 3.00	Grass, mainly green. Grass, mainly green. Grass, brown, short. Grass, short. Grass, mainly brown, short. Grass, brown, short. Grass, mainly brown, short.
Lindenau, P.O. Elandschoek	Nelspruit, . . . . .	Mar., 1934 June, 1934 Dec., 1934 June, 1935 Sept., 1935	.096 .052 .092 .075 .073	.27 .27 .34 .27 .42	.14 .22 .26 .14 .17	.90 .85 .98 .43 .06	.02 .02 .09 .traces .06	.20 .28 .43 .13 .14	5.7 3.7 6.1 3.5 4.3	34.4 33.4 34.4 38.9 38.9	2.13 2.68 2.95 2.22 2.88	Grass, mainly green, short. Grass, mainly brown, short. Grass, short. Grass, mainly brown, short. Grass, brown, short.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 7 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Rietspruit No. 37, P.O. Airlie	Carolina, . . . . .	July, 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.040 .098 .14 .10 .11	.24 .28 .26 .27 .40	.12 .19 .74 .87 .21	.32 .04 .03 .05 .32	trace .04 .03 .05 .45	.05 .37 .33 .25 .32	.40·3 7·9 4·6 4·6 33·0	1·54 3·01 3·12 2·87 3·17	Grass, mainly brown, short. Grass, mainly green, short. Grass, short. Grass, short. Grass, brown, short.	
Middleham, P.O. Kaapschehoop	Nelspruit, . . . . .	Feb., 1934 April, 1934 July, 1934 June, 1935 Sept., 1935	.32 .24 — .081 .12	.72 .59 .26 .16 .46	.44 .36 .34 .82 .27	.71 .82 .06 .16 .16	.05 .04 .01 .03 .46	.51 .63 — .19 .16	10·4 11·6 2·5 5·3 6·1	28·6 31·7 38·0 46·0 32·6	8·80 6·72 1·31 2·22 3·25	Brush. Grass, mainly green and bush; mostly grass. Grass, brown. Grass, long. Grass, mainly green, short.
Bellevue, P.O. Entre Nous	Baberton, . . . . .	Jan., 1934 May, 1934 Aug., 1934 Jan., 1935 Mar., 1935 May, 1935 Sept., 1935	.15 .053 .098 .087 .10 .086 .065	.45 .17 .21 .23 .12 .23 .24	.15 .11 .11 .12 .12 .23 .12	.58 .23 .02 .03 .60 .11 .42	.03 .10 .02 .26 .10 .55 .06	.53 2·1 2·1 2·1 .10 .55 .64	11·5 42·1 41·2 39·4 3·2 41·2 3·5	5·97 1·31 1·27 2·27 1·71 2·78 1·78	Grass and bush. Grass, mainly brown, long. Grass, brown, long. Grass, green, long. Grass, long. Grass, mainly green, leafy. Grass, brown, short.	

## AREA 8.

P. J. DU TOIT, J. G. LOUW AND A. I. MALAN.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Goddehoop.....	Christiana.....	Nov., 1933 Feb., 1934 May, 1934 Aug., 1934	.042 .16 .084 .070	.49 .29 .08 .32	.10 .11 .66 .07	.20 .41 .03 .17	.29 .01 .04 .04	.03 .18 .18 .15	34.6 7.7 34.3 2.9	2.15 1.53 2.82 1.62	Grass, brown. Grass, mainly green. Grass, mainly brown. Grass, brown.	
Skoonreg.....	Christiana.....	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934 Dec., 1934 Mar., 1935 June, 1935 Sept., 1935	.14 .13 .078 .062 .094 .088 .054 .058	.27 .40 .29 .22 .56 .51 .62 .54	.16 .11 .10 .11 .10 .09 .09 .09	.1.99 1.00 .55 .12 .31 1.10 .29 .46	.03 .03 .03 .23 .06 .06 .09 .02	.55 .58 .27 .15 .28 .24 .05 .13	9.8 11.8 5.9 4.7 7.0 6.3 3.6 5.1	30.3 30.4 35.5 35.3 33.9 31.7 34.3 34.3	4.67 4.05 2.93 2.10 3.38 3.27 2.13 2.49	Grass, short. Grass, mainly green. Grass, mainly brown. Grass, brown. Grass, mainly green. Grass, mainly green, short. Grass, brown, short. Grass, brown, leafy.
Richmond, P.O. Britten	Christiana.....	Jan., 1934 April, 1934 July, 1934 Oct., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.22 .15 .049 .064 .079 .10 .39 .50 .094	.33 .44 .31 .38 .26 .09 .11 .14	.12 .12 .06 .26 .1.12 .1.05 .37 .1.00	.2.10 1.38 .04 .28 .1.12 .02 .03 .09	.18 .04 .01 .28 .02 .02 .03 .09	.44 .22 .02 .03 .26 .20 .09 .21	10.1 8.3 3.02 6.6 3.6 5.6 3.6 8.1	33.3 32.2 3.02 36.5 35.0 32.1 32.5 29.0	4.49 3.02 1.44 1.51 2.22 2.72 2.16 2.99	Grass, mainly green. Grass, mainly green. Grass, brown. Grass, brown. Grass, mainly green, long. Grass, mainly green. Grass, brown, leafy. Grass, leafy.
Appeldraai.....	Ventersdorp....	Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.10 .064 .051 .096 .083 .076 .065	.32 .46 .35 .29 .54 .45 .32	.23 .15 .12 .12 .15 .11 .12	.1.40 .68 .16 .76 .80 .44 .36	.04 .04 .16 .trace .trace .trace .trace	.28 .16 .01 .37 .28 .08 .08	6.9 33.8 2.6 35.7 5.7 4.0 2.4	33.2 33.8 1.52 35.7 34.4 32.2 34.1	3.16 2.13 1.52 2.24 2.80 1.86 1.84	Grass, mainly green. Grass, mainly brown, leafy. Grass, brown, leafy. Grass, mainly green, leafy. Grass, green, leafy. Grass, mainly green, short. Grass, brown, leafy.
Vlakfontein.....	Ventersdorp....	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934 Dec., 1934 April, 1935 June, 1935 Sept., 1935	.16 .13 .061 .037 .085 .085 .060 .040	.25 .29 .35 .29 .28 .32 .32 .24	.12 .17 .15 .14 .18 .12 .08 .16	.1.60 .44 .32 .09 .04 .73 .25 .24	.32 .02 .05 .02 .08 .02 .05 .01	— — — — — — — —	37.6 37.3 34.6 34.3 32.6 2.58 1.51 1.97	3.54 2.89 1.70 1.27 2.57 2.58 1.51 1.97	Grass, mainly green. Grass, mainly brown, leafy. Grass, brown, leafy. Grass, brown, leafy. Grass, brown, leafy. Grass, green, leafy. Grass, brown, leafy. Grass, brown, leafy.	

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 8 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Doornpan.....	Ventersdorp....	Jan., 1934	.12	.25	.12	1.56	trace	.23	10.7	39.0	3.70	Grass, mainly green.
		April, 1934	.10	.39	.16	.66	.03	.15	4.9	35.0	2.02	Grass.
		July, 1934	.061	.33	.12	.26	trace	.07	2.7	34.0	1.65	Grass, brown, leafy.
		Oct., 1934	.069	.32	.16	.36	trace	.07	3.9	36.1	1.81	Grass, brown, leafy.
		Jan., 1935	.11	.37	.12	1.31	trace	.47	7.1	33.2	3.04	Grass, mainly green, leafy.
		Mar., 1935	.075	.30	.11	.78	trace	.13	5.5	33.0	2.15	Grass, leafy.
		July, 1935	.081	.47	.17	.38	.03	.10	3.1	35.6	3.03	Grass, brown, leafy.
		Oct., 1935	.067	.30	.07	.27	trace	.04	3.9	35.4	1.69	Grass, brown, leafy.
Doornhoek No. 24	Klerksdorp....	Nov., 1933	.075	.22	.12	.44	trace	.13	3.7	33.2	2.21	Grass, mainly brown.
		Feb., 1934	.13	.27	.20	1.89	.03	.43	10.0	35.3	3.98	Grass, mainly green.
		May, 1934	.068	.34	.19	1.35	.04	.34	5.1	33.4	2.95	Grass, leafy.
		Aug., 1934	.048	.29	.13	.32	trace	.04	3.6	35.3	2.07	Grass, brown, leafy.
		Nov., 1934	.12	.35	.18	1.90	trace	.34	8.7	35.7	3.57	Grass, mainly green, leafy.
		Feb., 1935	.11	.38	.27	2.20	trace	.63	8.8	35.3	4.51	Grass, green, leafy.
		May, 1935	.072	.34	.13	.52	trace	.10	4.7	30.4	1.94	Grass, leafy.
		Aug., 1935	.063	.36	.15	.38	.05	.09	2.8	35.2	2.05	Grass, brown, leafy.
22 Lapfontein, P.O. Brakspuit	Klerksdorp....	Dec., 1933	.18	.37	.24	2.27	.03	.54	14.3	31.1	4.75	Grass, mainly green, short.
		Mar., 1934	.14	.36	.16	1.81	.03	.38	6.5	37.7	3.78	Grass, mainly green.
		June, 1934	.10	.50	.18	.87	.01	.21	4.1	36.1	2.87	Grass, mainly brown, leafy.
		Sept., 1934	.07	.37	.09	.32	trace	.05	4.2	36.9	1.77	Grass, brown, leafy.
		Jan., 1935	.096	.51	.25	2.29	trace	.49	8.3	34.9	4.78	Grass, green, short.
		Mar., 1935	.17	.45	.13	1.52	trace	.30	10.7	33.3	3.35	Grass, green, leafy.
		June, 1935	.08	.49	.08	.64	trace	.07	4.9	32.3	2.21	Grass, brown, leafy.
		Sept., 1935	.061	.34	.10	.38	.04	.13	4.1	33.5	1.88	Grass, brown, leafy.
Swartkoppies No. 59	Klerksdorp....	Feb., 1934	.14	.26	.15	2.19	.04	.56	8.9	36.4	4.82	Grass, mainly green, leafy.
		April, 1934	.11	.31	.13	1.49	.14	.42	7.6	31.3	2.90	Grass, mainly green, leafy.
		July, 1934	.054	.48	.14	.39	trace	.15	3.8	35.4	2.00	Grass, brown, leafy.
		Oct., 1934	.13	.36	.10	.63	.02	.09	4.6	33.7	2.19	Grass, mainly green, leafy.
		Jan., 1935	.11	.33	.12	1.14	.03	.56	5.3	32.7	2.58	Grass, mainly green, leafy.
		April, 1935	.14	.37	.14	1.12	.04	.17	6.9	33.2	2.88	Grass, green, leafy.
		July, 1935	.10	.51	.18	.79	.01	.13	4.0	37.5	2.80	Grass, brown, leafy.
		Oct., 1935	.051	.29	.05	.09	trace	.01	2.9	42.7	1.23	Grass, brown.
23 Driefontein No. 31	Wolmaransstad.	Nov., 1933	.049	.15	.14	.41	.16	.33	5.2	41.0	1.79	Grass.
		Feb., 1934	.13	.19	.09	1.36	.10	.30	7.2	37.9	2.87	Grass, mainly green.
		May, 1934	.12	.43	.17	1.12	.04	.35	7.9	33.0	3.28	Grass.
		Oct., 1934	.066	.36	.13	.39	trace	.07	4.5	33.3	—	Grass, leafy.
		Jan., 1935	.11	.29	.13	1.21	.03	.32	6.9	33.3	2.69	Grass, mainly green, leafy.
		April, 1935	.078	.26	.091	.70	trace	.19	5.3	35.4	3.44	Grass.
		July, 1935	.067	.36	.12	.31	.02	.07	3.3	36.1	1.91	Grass, brown, leafy.
		Oct., 1935	.055	.34	.11	.29	trace	.02	3.8	32.5	1.93	Grass, brown, leafy.

AREA 8 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Zwartrand.....	Wolmaransstad.	Dec., 1933	.14	—	.08	1.11	.02	.21	7.1	40.4	2.38	Grass, mainly green.
		Mar., 1934	.11	.20	.10	1.25	trace	.35	5.3	38.9	2.78	Grass,
		June, 1934	.14	.31	.10	.65	.03	.15	4.7	37.3	2.08	mostly brown and brush;
		Aug., 1934	.044	.37	.09	.16	trace	.01	2.8	34.5	1.52	Grass, mostly grass.
		Nov., 1934	.077	.27	.13	1.09	.15	.43	5.5	39.3	2.82	Grass, brown, leafy.
		Feb., 1935	.11	.43	.19	.94	trace	.19	5.5	33.4	2.75	Grass, mainly brown, leafy.
		May, 1935	.10	.32	.06	.34	.02	.08	4.5	32.2	1.82	Grass, green, leafy.
		Aug., 1935	.092	.32	.11	.53	.02	.17	4.7	37.0	3.28	Grass, mainly brown, leafy.
		Tan., 1934	.23	.24	.13	.24	.06	.47	9.1	32.7	4.46	Grass, brown, leafy.
		April, 1934	.092	.21	.06	.45	.02	.05	5.4	34.0	1.39	Grass, mainly green.
Ossenkraal, P.O. Maquassi	Wolmaransstad.	Oct., 1934	.06	.31	.10	.37	trace	.09	4.4	33.6	1.37	Grass, leafy.
		Dec., 1934	.084	.20	.09	1.34	trace	.24	5.4	37.1	2.54	Grass, mainly green, leafy.
		Mar., 1935	.074	.25	.12	.70	.02	.12	5.1	35.7	1.88	Grass, mainly green.
		June, 1935	.083	.28	.09	.34	trace	.03	4.1	38.7	1.52	Grass, brown, leafy.
		Sept., 1935	.044	.27	.09	.22	trace	.08	3.6	34.8	1.50	Grass, brown, leafy.
		Nov., 1933	.13	.27	.12	.98	.02	.22	8.7	29.5	3.31	Grass, mainly green.
		Oct., 1934	.063	.20	.10	.48	trace	.08	5.1	35.2	1.57	Grass, brown.
Panfontein.....	Schweizer-Reneke	Jan., 1935	.054	.17	.07	.60	.02	.10	4.5	35.6	1.51	Grass, mainly green.
		April, 1935	.050	.21	.084	.36	.02	.12	4.5	35.5	1.50	Grass, mainly green.
		July, 1935	.057	.28	.089	.25	.02	.07	3.2	34.9	1.68	Grass, brown.
		Dec., 1933	.071	.23	.13	1.10	.06	.22	6.6	42.8	3.80	Grass, mainly green.
		April, 1934	.075	.29	.10	.76	.02	.17	4.7	37.5	2.00	Grass, mainly green.
		June, 1934	.049	.26	.085	.62	trace	.13	4.4	34.1	1.94	Grass, mainly green.
Makonkop.....	Schweizer-Reneke	Aug., 1934	.036	.20	.10	.41	trace	.04	4.3	35.8	1.39	Grass, brown.
		Nov., 1934	.054	.21	.088	.42	trace	.09	5.1	37.3	1.47	Grass, brown.
		Feb., 1935	.065	.25	.09	1.04	.02	.22	6.5	33.5	2.42	Grass, mainly green.
		Mar., 1934	.13	.28	.18	1.63	.02	.36	10.9	32.7	3.47	Grass, short.
		May, 1934	.093	.31	.14	.93	.03	.23	5.5	34.8	2.82	Grass, mainly green.
Holpan.....	Schweizer-Reneke	July, 1934	.030	.22	.07	.25	trace	.05	4.0	39.5	1.30	Grass, leafy.
		Sept., 1934	.046	.25	.10	.41	.02	.06	4.4	33.6	1.40	Grass, brown.
		Mar., 1935	.080	.28	.09	.72	.02	.16	5.1	36.1	2.10	Grass, green, short.
		Dec., 1933	.21	.39	.11	2.03	.02	.28	12.1	26.0	5.94	Grass, green, short.
		Feb., 1934	.15	.26	.14	1.46	.02	.18	7.9	30.2	2.38	Grass, mainly green, short.
Vythoek.....	Potchefstroom..	May, 1934	.063	.32	.13	.80	.02	.10	3.7	32.2	2.20	Grass, leafy.
		Aug., 1934	.051	.38	.17	.24	.01	.04	4.1	31.7	1.81	Grass, mainly brown, leafy.
		Feb., 1935	.089	.27	.16	1.84	trace	.28	5.9	30.7	2.64	Grass, mainly green, short.
		May, 1935	.088	.28	.11	.86	.02	.17	5.8	32.8	2.22	Grass, mainly green, leafy.
		Aug., 1935	.066	.42	.13	.32	.03	.05	3.5	35.0	2.18	Grass, brown, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

 AREA 8 (*continued*).

Farm.	District.	Date.	P. Ca.	Mg. Ca.	K. Na.	Cl. Na.	Crude Pro- tein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.	
Buffelsvlei, Boskop	P.O. Potchefstroom..	Jan., 1934	.14	.28	.16	1.74	.02	.25	14.6	3.98	Grass, mainly green, short.
		Mar., 1934	.098	.33	.16	1.09	.02	.21	5.9	2.76	Grass, mainly green.
		June, 1934	.05	.31	.13	.44	.01	.07	4.0	1.75	Grass, mainly brown, leafy.
		Sept., 1934	.045	.40	.11	.26	.02	.04	3.6	32.4	1.80
		Dec., 1934	.14	.36	.11	1.77	.45	.67	10.1	28.3	4.46
		July, 1935	.056	.39	.11	.36	.01	.11	4.3	30.7	1.97
		Sept., 1935	.040	.32	.11	.23	.02	.10	3.6	33.5	1.68
Elbrinsen.....	Potchefstroom..	Feb., 1934	.10	.30	.17	1.92	.02	.39	6.7	34.8	3.88
		April, 1934	.089	.43	.21	1.40	.04	.38	7.3	34.2	3.70
		July, 1934	.053	.34	.13	.39	trace	.08	3.6	34.7	1.98
		Oct., 1934	.091	.30	.12	.56	.07	.11	6.0	34.9	1.90
		Jan., 1935	.13	.28	.16	1.52	trace	.27	7.3	33.5	3.31
		June, 1935	.12	.29	.21	1.01	.02	.14	5.2	37.2	2.85
Rietvlei No. 13.	Kruggersdorp...	Jan., 1934	.078	.19	.10	.98	trace	.16	6.3	40.3	2.15
		April, 1934	.087	.23	.10	.55	.01	.10	—	34.5	1.37
		Aug., 1934	.031	.19	.07	.13	trace	.01	2.5	34.7	1.01
		Nov., 1934	.16	.19	.12	1.26	.02	.15	12.1	31.1	3.10
		Feb., 1935	.11	.19	.07	.66	.03	.14	5.5	34.1	2.19
		May* 1935	.048	.20	.10	.28	trace	.07	3.4	32.6	1.57
		Aug., 1935	.052	.29	.097	.23	trace	.09	2.9	35.2	1.61
Danielsrust No. 19	Kruggersdorp...	Feb., 1934	.13	.27	.17	1.37	.03	.32	11.1	35.2	3.23
		May, 1934	.029	.27	.17	.48	.02	.10	2.9	38.1	1.67
		July, 1934	.076	.31	.10	—	—	.08	4.4	34.1	1.77
		Jan., 1935	.070	.63	.21	1.32	trace	.18	5.7	36.0	3.37
		April, 1935	.10	.29	.15	1.21	.03	.22	5.1	36.9	3.15
		July, 1935	.035	.34	.16	.23	trace	.08	3.2	36.9	2.00
		Oct., 1935	.062	.33	.13	.34	trace	.03	4.8	32.8	2.43
Steenkoppies No. 101, P.O. Maga- liesberg	Kruggersdorp...	Mar., 1934	.084	.27	.28	.83	.01	.23	5.8	35.3	2.32
		July, 1934	.029	.34	.15	.18	.01	.03	3.3	34.9	1.54
		Sept., 1934	.096	.19	.12	.92	.02	.27	7.8	33.3	2.06
		Dec., 1934	.10	.25	.13	1.35	trace	.29	7.2	34.6	3.03
		Mar., 1935	.12	.18	.12	.81	trace	.14	5.9	34.8	3.17
		June, 1935	.044	.25	.15	.27	trace	.09	2.5	35.9	1.71
		Sept., 1935	.031	.30	.11	.15	.02	.06	2.8	36.4	1.47
L o s k o p P. O. Meyerton	Vereniging....	Oct., 1933	.050	.26	.06	.29	.02	.02	6.2	36.4	1.45
		Jan., 1934	.19	.29	.09	1.75	.03	.25	11.8	30.0	3.80
		April, 1934	.12	.47	.16	.98	.03	.23	6.2	35.2	2.48
		Aug., 1934	.042	.40	.10	.16	trace	.02	2.9	35.3	1.58
		Mar., 1935	.086	.36	.13	.78	trace	.00	6.0	32.3	2.35
		June, 1935	.073	.30	.09	.33	trace	.04	3.2	36.4	1.67
		Sept., 1935	.041	.27	.09	.14	.01	.06	3.0	33.6	1.28

AREA 8 (*continued*)

P. J. DU TOIT, J. G. LOUW AND A. I. MALAN.

Parm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Slangfontein, P.O. Meyerton	Vereniging....	Nov., 1933 Feb., 1934 May, 1934 Sept., 1934 April, 1935 July, 1935 Oct., 1935	.16 .13 .056 .025 .13 .063 .045	.31 .28 .54 .48 .34 .37 .34	.12 .12 .75 .02 .01 .12 .06	1.32 1.49 .75 .02 .27 .02 .02	.04 .10 .10 .12 .16 .08 .01	.24 .29 .18 .02 .02 .08 .01	9.8 9.2 3.8 33.0 34.6 29.3 33.0	36.7 30.4 2.87 1.50 2.76 1.81 1.56	3.53 3.20 2.87 1.50 2.76 1.81 1.56	Grass, mainly green, short. Grass, mainly brown, leafy. Grass, brown, leafy. Grass, green, short. Grass, brown, leafy. Grass, brown, short.
Chrissiefontein, P.O. Meyerton	Vereniging....	Dec., 1933 Mar., 1934 June, 1934 Feb., 1935 May, 1935 Aug., 1935	.14 .069 .045 .082 .069 .098	.27 .30 .29 .28 .41 .41	.17 .26 .16 .11 .14 .15	2.14 97 .32 .75 .44 .31	.02 .02 .32 .02 .trace .02	.36 .27 .05 .09 .08 .10	10.3 4.1 3.7 5.5 4.3 3.6	30.2 32.4 34.9 32.2 28.6 35.4	3.56 2.49 1.42 30.7 2.19 2.04	Grass, green, short. Grass, neatly green, short. Grass, mainly brown, leafy. Grass, mainly green, short. Grass, short. Grass, brown, short.
Heidelberg (Town Lands)	Heidelberg....	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.065 .062 .062 .054 .16 .086 .037 .090	.16 .17 .18 .22 .30 .28 .24 .22	.08 .11 .10 .13 .12 .14 .11 .11	.93 .63 .22 .45 .44 .37 .31 .58	.01 .01 .04 .04 .04 .02 .04 .trace	.19 .12 .04 .27 .04 .12 .01	5.6 4.9 3.3 32.2 8.2 5.2 2.9 5.9	34.7 37.6 36.9 32.2 35.5 33.6 35.0 32.3	2.48 1.72 1.24 2.02 3.30 2.34 1.37 1.80	Grass, mainly green. Grass, mainly brown. Grass, short. Grass, green. Grass, brown, leafy. Grass, mainly green, short.
255	Klippoortjie No. 228	Jan., 1934 April, 1934 July, 1934 Oct., 1934 Feb., 1935 May, 1935 Aug., 1935	.20 .083 .32 .048 .052 .096 .046	.22 .32 .16 .07 .13 .29 .16	.15 .09 .07 .07 .03 .12 .06	1.83 .83 .02 .25 .30 .80 .36	.07 .02 .02 .04 .04 .08 .trace	.35 .18 .03 .02 .02 .24 .08	7.5 4.6 3.4 4.7 4.7 5.2 3.8	40.6 37.0 40.2 34.7 34.2 31.9 34.6	4.12 2.32 1.33 1.30 2.19 1.56 35.6	Grass, mainly green. Grass, mainly green. Grass, brown, long. Grass, mainly brown. Grass, mainly green. Grass, mainly brown, leafy. Grass, brown, short.
Eendracht.....	Heidelberg....	Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 Feb., 1935 June, 1935 Sept., 1935	.11 .031 .047 .083 .067 .084 .058	.19 .19 .25 .17 .53 .22 .38	.07 .07 .10 .08 .07 .07 .14	1.41 .44 .13 .84 .43 .32 .42	.02 .01 .trace .04 .trace .06 .05	.35 .18 .01 .15 .07 .06 .08	6.7 2.5 2.7 6.6 4.1 4.3 4.6	40.0 40.2 39.7 42.1 38.4 37.7 31.3	2.83 1.53 1.42 1.65 1.65 1.88 1.95	Grass, mainly green. Grass, mainly brown. Grass, brown, short.
Bloemfontein...	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934	.22 .12 .04 .066	.46 .29 .38 .25	.15 .11 .15	.28 .145 .50 .65	2.31 .03 .01 .01	.03 .03 .01 .14	.41 .36 .14 .14	29.6 7.0 3.7 4.8	5.36 3.41 3.87 35.9	Grass, mainly green, and bush; mostly grass. Grass, mainly green. Grass, mainly brown, leafy, and bush; mostly grass. Grass, mainly green.	
Dealesgat.....	May, 1935	.17	.31	.13	.93	.03	.19	.51	35.4	2.57		

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 8 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Fibre, Protein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.
Parady's.....	Bloemfontein...	Jan., 1934	.15	.35	.19	.276	.06	.53	13.3	30.3	5.49	Grass, green.
		April, 1934	.11	.24	.11	.22	.01	.22	6.0	2.7	34.2	Grass, brown.
		July, 1934	.043	.22	.07	.56	.01	.09	—	—	38.3	Grass, mainly green, short.
		Oct., 1934	.13	.33	.08	.95	trace	—	8.0	—	5.76	Grass, mainly green, short.
		Feb., 1935	.084	.21	.06	.126	trace	.07	3.9	36.1	2.56	Grass, mostly grass.
		June, 1935	.11	.44	.14	.92	.03	.13	6.5	31.9	2.91	Grass, mainly green, and bush; mostly grass.
Panburyne.....	Bloemfontein...	Feb., 1934	.13	.29	.13	.176	trace	.26	9.6	34.7	3.78	Grass, green.
		May, 1934	.036	.24	.09	.46	trace	.09	5.9	36.3	1.62	Grass, mainly brown.
		Aug., 1934	.044	.18	.07	.28	trace	.03	3.0	38.2	1.02	Grass, brown.
		Dec., 1934	.067	.28	.09	.84	trace	.14	5.8	39.1	2.30	Grass.
		Mar., 1935	.062	.23	.07	.61	trace	.21	4.9	33.0	1.87	Grass, mainly green, and bush; mostly grass.
		Sept., 1935	.10	.32	.14	.66	.21	.23	7.3	32.6	3.72	Grass, short.
Katvleijsvlei.....	Hoopstad.....	Nov., 1933	.073	.26	.10	.96	.02	.14	7.4	31.9	2.60	Grass, short.
		May, 1934	—	.26	.13	.75	.01	—	3.4	42.0	2.01	Grass, mainly brown, and bush; mostly grass.
		Aug., 1934	.047	.16	.07	.43	trace	.06	4.6	38.4	1.40	Grass, mainly brown, short.
		Nov., 1934	.11	.24	.12	.65	.03	.36	7.7	36.4	3.35	Grass, mainly green.
		Feb., 1935	.065	.25	.07	.86	trace	.15	5.1	38.2	2.06	Grass, green.
		May, 1935	.06	.23	.09	.51	trace	.08	3.7	41.1	1.68	Grass and bush; mostly grass.
Wintershoek.....	Hoopstad.....	Aug., 1935	.088	.25	.11	.70	.07	.16	5.5	34.9	2.13	Grass, mainly brown, short.
		Dec., 1933	.17	.45	.19	.236	.05	.39	12.5	28.6	5.17	Grass, green, and bush; mostly grass.
		Mar., 1934	.16	.34	.20	1.82	.04	.46	9.8	32.8	4.28	Grass, green.
		June, 1934	.07	.36	.15	.53	.01	.11	4.7	42.7	2.12	Grass, mainly brown, and bush; mostly grass.
		Sept., 1934	.15	.44	.20	1.69	.04	.43	9.6	33.8	3.71	Grass, mainly brown, short, and bush; mostly grass.
		Dec., 1934	.11	.25	.13	1.60	.03	.35	6.1	38.8	3.06	Grass, green.
Rustvlei.....	Hoopstad.....	Mar., 1935	.056	.27	.08	.97	trace	.14	5.9	36.2	2.40	Grass, mainly green.
		June, 1935	.12	.55	.28	1.17	trace	.21	8.4	37.2	3.73	Grass, mainly brown, and bush.
		Sept., 1935	.093	.36	.11	.85	.02	.11	5.4	36.6	2.57	Grass and bush; mostly grass.
		Jan., 1934	.16	.29	.15	.216	.12	.39	9.1	38.3	4.13	Grass, mainly green.
		April, 1934	.11	.28	.12	1.15	.02	.25	5.9	40.3	2.81	Grass, brown, leafy.
		July, 1934	.098	.35	.10	.51	.01	.09	3.4	34.1	1.93	Grass, mainly green.
256	Hoopstad.....	Oct., 1934	.10	.56	.19	1.51	.03	.46	7.3	33.3	3.85	Grass, mainly green.
		Jan., 1935	.075	.31	.13	.79	.02	.19	5.4	37.6	2.18	Grass, mainly green.
		April, 1935	.11	.32	.12	1.17	.14	.21	6.8	31.1	2.81	Grass, mainly green, short.
		July, 1935	.092	.36	.11	.63	.02	.10	4.1	37.6	2.40	Grass, brown and bush; mostly grass.
		Oct., 1935	.089	.42	.12	1.08	.05	.26	6.0	32.7	3.31	Grass.

AREA 8 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Maud Allan . . . . .	Kroonstad . . . . .	April, 1934	.11	.29	.17	1.18	.03	.32	6.0	36.2	2.66	Grass, mainly green.
		July, 1934	.065	.26	.09	.70	.01	.05	5.2	36.9	2.11	Grass, brown.
		Oct., 1934	.096	.25	.13	1.29	trace	.23	6.2	34.7	2.64	Grass, mainly green.
		Jan., 1935	.076	.25	.11	1.17	.02	.22	5.7	35.4	2.37	Grass, mainly green.
Mooidam . . . . .	Kroonstad . . . . .	Feb., 1934	.19	.22	.17	2.40	.04	.59	8.3	36.6	4.25	Grass, mainly green.
		May, 1934	.05	.50	.10	.64	trace	.13	3.8	33.5	2.58	Grass, leafy.
		Aug., 1934	.055	.31	.10	.22	trace	.02	3.8	37.6	1.45	Grass, mainly brown.
		Nov., 1934	.11	.25	.06	1.62	trace	.21	5.7	37.1	2.47	Grass, mainly green.
		May, 1935	.10	.32	.13	.44	trace	.09	3.3	36.8	1.74	Grass, mainly brown.
		Aug., 1935	.044	.34	.12	.16	.02	.08	2.0	41.2	1.74	Grass, brown, leafy.
		Mar., 1934	.11	.24	.14	2.63	.03	.90	9.3	32.9	4.95	Grass, mainly green.
		June, 1934	.068	.23	.14	.42	.02	.10	2.4	38.1	1.56	Grass, mainly brown.
Lerna . . . . .	Kroonstad . . . . .	Dec., 1934	.12	.31	.12	1.34	.24	.36	6.4	33.1	3.13	Grass, mainly green.
		Mar., 1935	.10	.30	.07	.88	trace	.18	6.1	37.0	2.35	Grass, mainly brown, leafy.
		June, 1935	.072	.31	.10	.38	trace	.07	3.4	37.3	1.52	Grass, brown, leafy.
		Sept., 1935	.06	.26	.07	.22	.02	.19	4.2	38.2	1.47	Grass, brown, leafy.
		Dec., 1933	.17	.30	.11	1.88	.05	.25	9.5	33.9	3.83	Grass, mainly green.
		Mar., 1934	.098	.39	.10	1.29	.02	.16	5.8	31.0	2.96	Grass, mainly green.
		June, 1934	.07	.44	.09	.34	.09	.13	3.4	35.4	2.12	Grass, mainly brown.
		Dec., 1934	.10	.34	.08	.98	trace	.24	5.9	34.9	2.45	Grass, green, leafy.
Palnietskuil . . . . .	Winburg . . . . .	Mar., 1935	.07	.35	.04	.44	.02	.08	4.1	33.7	1.76	Grass, mainly brown, leafy.
		June, 1935	.052	.24	.07	.20	trace	.05	2.9	35.8	1.24	Grass, brown, leafy.
		Sept., 1935	.054	.26	.06	.15	.02	.02	3.1	34.3	1.40	Grass, brown, leafy.
		Dec., 1933	.17	.30	.12	1.86	.03	.43	6.3	40.1	3.40	Grass, green.
		Mar., 1934	.14	.37	.12	1.00	.03	.18	4.8	34.2	2.68	Grass, mainly green.
		July, 1934	.075	.23	.08	.26	.01	.04	2.3	40.6	1.32	Grass, brown.
		Oct., 1934	.07	.31	.11	.33	.03	.05	3.8	34.5	1.64	Grass, brown, leafy.
		Jan., 1935	.082	.25	.13	1.09	.02	.23	4.3	34.6	2.33	Grass, mainly green, leafy.
Koppiesfontein Wes	Winburg . . . . .	April, 1935	.11	.33	.14	.53	.08	.18	4.4	33.4	2.29	Grass, brown, leafy.
		July, 1935	.11	.42	.09	.23	.02	.07	2.8	40.8	1.72	Grass, brown, leafy.
		Oct., 1935	.073	.37	.08	.33	.02	.04	4.0	31.4	2.08	Grass, brown; leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 8 (*continued*).

Parm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Fraai Uitzicht....	Winburg.....	Feb., 1934	.11	.21	.11	1.24	.04	.27	6.4	37.0	2.98	Grass, mainly green.
		May, 1934	.12	.31	.15	.67	.03	.16	3.4	37.4	2.23	Grass, mainly brown.
		Aug., 1934	.078	.35	.17	.19	trace	.01	3.3	32.9	1.44	Grass, brown, leafy.
		Nov., 1934	.096	.25	.09	.65	.02	.10	5.3	36.7	1.67	Grass, mainly green.
		Feb., 1935	.082	.21	.12	.67	trace	.08	4.4	34.7	1.60	Grass, mainly green, leafy.
		May, 1935	.11	.39	.14	.35	trace	.07	3.5	34.4	1.69	Grass, mainly brown, leafy.
		Aug., 1935	.09	.36	.16	.30	.01	.07	2.4	33.1	1.83	Grass, brown, leafy.
Welgevlei.....	Brandfort.....	Jan., 1934	.16	.21	.10	1.82	.04	.33	6.8	41.9	3.41	Grass, mainly green, long.
		April, 1934	.083	.26	.12	1.41	.02	.35	4.3	39.9	2.91	Grass and bush; mostly grass.
		Nov., 1934	.052	.38	.11	.41	trace	.06	3.4	33.8	2.43	Grass, mainly brown and bush; mostly grass.
		Feb., 1935	.11	.32	.08	.96	trace	.08	5.1	38.5	2.29	Grass, mainly green.
		June, 1935	.12	.33	.21	.69	trace	.16	5.1	31.5	2.10	Grass, leafy.
Enkeldoorn.....	Brandfort.....	Mar., 1934	.10	.27	.15	1.71	.07	.36	7.4	37.1	3.54	Grass, mainly green.
		June, 1934	.06	.26	.07	.32	trace	.05	3.1	37.1	1.43	Grass, mainly brown.
		Jan., 1935	.08	.22	.09	1.19	.02	.33	4.9	40.0	2.31	Grass, mainly green, long.
		April, 1935	.093	.27	.12	.80	.03	.14	6.1	32.2	2.27	Grass, green, leafy.
		Sept., 1935	.12	.33	.12	.59	.01	.13	4.4	36.6	2.22	Grass, brown.
Spytfontein.....	Brandfort.....	May, 1934	—	.32	.19	.85	.02	—	5.0	34.7	2.21	Grass.
		Dec., 1934	.10	.28	.12	1.39	.05	.33	7.5	34.0	2.89	Grass, mainly green.
		Mar., 1935	.14	.40	.11	.82	trace	.12	5.7	36.1	2.42	Grass, green.
		June, 1935	.098	.31	.11	.59	trace	.10	4.3	35.2	2.23	Grass.

## AREA 9.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Bothashoek No. 24 P.O. Noodshulp	Middelburg....	Dec., 1933 Mar., 1934 June, 1934 Oct., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.14 .073 .047 .073 .10 .53 .21 .071	.30 .18 .23 .12 .14 .10 .10 .18	.12 .90 .52 .03 .08 .75 .08 .08	.04 .03 .03 .02 .07 .02 .07 .02	.21 .18 .10 .16 .16 .03 .02 .08	7.6 6.1 3.3 5.0 — — 2.6 4.1	31.1 32.1 31.8 — — 2.28 33.1 35.1	4.00 2.45 2.07 2.01 — 2.28 2.24 1.40	Grass, green, short. Grass, mainly green, short. Grass, mainly brown, short. Grass, short. Grass, green, short. Grass, green, short. Grass, mainly brown, short. Grass, brown, short.	
Platfontein No. 237	Middelburg....	Jan., 1934 April, 1934 July, 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.090 .058 .042 .13 .10 .051 .049	.23 .19 .20 .52 .36 .39 .23	.12 .12 .09 .18 .14 .14 .11	.13 .97 .41 .80 .98 .63 .41	.14 .02 .01 .15 .07 .07 .02	.40 .18 .08 .42 .21 .16 .17	7.5 30.1 32.5 — 6.0 3.4 .17	36.8 30.1 1.55 — 32.5 30.6 33.1	2.75 1.98 1.55 — 4.20 3.08 2.68	Grass, green, short. Grass, mainly green, short. Grass, mainly brown, short. Grass, green, short. Grass, green, short. Grass, short. Grass, brown, short.
Mooiwater, P.O. Lammerklop	Middelburg....	Nov., 1933 Feb., 1934 May, 1934 Aug., 1934 Nov., 1934 May, 1935	.11 .095 .061 .053 .082 .046	.15 .28 .28 .24 .16 .21	.11 .14 .13 .10 .11 .14	.10 .99 .42 .13 .95 .56	.02 .01 .01 .01 .03 .02	.22 .18 .12 .3.3 .23 .18	7.8 6.5 3.3 2.6 .8 .3.2	32.3 36.4 34.0 37.1 32.0 35.5	2.58 2.12 1.71 1.21 2.40 1.86	Grass, green. Grass, mainly green. Grass, mainly brown, leafy. Grass, brown, leafy. Grass, mainly green, leafy. Grass, short.
Bantfontein 234	Middelburg....	Dec., 1935 Mar., 1934 June, 1934 Sept., 1934 Mar., 1935 June, 1935	.086 .091 .033 .047 .074 .074	.19 .26 .19 .27 .25 .25	.11 .16 .08 .06 .15 .09	.16 .29 .30 .21 .86 .34	.02 .03 .01 .06 .03 .02	.21 .27 .06 .03 .14 .08	3.8 5.4 3.5 3.3 .37.1 .2.8	37.6 39.1 37.0 35.3 37.1 42.2	2.13 2.60 1.15 1.24 2.02 1.66	Grass, mainly green, short. Grass, mainly brown, leafy. Grass, mainly brown, leafy. Grass, mainly green, leafy. Grass, mainly brown, leafy.
Hartbeesthoek, P.O. Arnott	Middelburg....	Jan., 1934 April, 1934 July, 1934 Jan., 1935 April, 1935	.078 .10 .067 .068 .072	.22 .34 .29 .21 .41	.11 .13 .05 .51 .10	.12 .92 .05 .05 .10	.02 .01 .06 .05 .07	.22 .19 .06 .24 .05	6.2 4.5 4.5 .24 .05	33.4 34.0 36.7 36.7 33.8	2.49 2.44 1.25 2.29 2.60	Grass, mainly green, short. Grass, brown, leafy. Grass, mainly green, leafy. Grass, mainly green, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Pro- tein.	Crude Fibre.	Crude Ash.	Solu- ble Ash.	Description of Sample.
Gembokspruit, P.O. Molayta	Middelburg....	Nov., 1933 Feb., 1934	.16 .075	.60 .28	.41 .13	4.56 1.39	.05 trace	.57 .19	14.0 5.1	24.3 37.0	10.60 3.00	Grass, mainly brown and bush. Grass, mainly green and bush; mostly grass.	
		May, 1934	.039	.32	.11	.57	.02	.04	3.0	37.5	1.77	Grass, mainly brown and bush ; mostly grass.	
		Aug., 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.021 .12 .089 .063 .065	.17 .35 .13 .41 .19	.08 .16 1.34 1.21 .84	.25 2.32 trace	.03 .23 .12	2.7 8.3 6.8	37.2 31.6 37.2	.94 3.99 3.36	Grass, brown, short. Grass, green, leafy. Grass, green, long. Grass, mainly brown and bush. Grass, brown, leafy and bush ; mostly grass.		
Vogelstruiskopic, P.O. Ottensville	Middelburg....	Dec., 1933 Mar., 1934	.20 .16	1.78 1.22	.43 .48	2.88 2.12	.78 .42	1.24 .99	14.2 10.9	27.7 28.5	10.40 7.77	Grass, green and bush. Grass, green, long and bush mostly grass.	
		June, 1934	.11	1.46	.36	1.59	.29	.48	7.3	40.1	7.16	Grass, long and bush ; mostly grass.	
		Sept., 1934 Dec., 1934	.037 .16	.15 1.40	.07 .55	.04 3.47	.02 .31	.06 .76	3.2 11.7	40.6 31.8	1.15 10.30	Grass, brown, long. Grass, mainly green, leafy and bush ; mostly grass.	
		Mar., 1935	.18	1.36	.58	2.70	.12	.73	11.3	35.3	8.40	Grass, mainly green and bush ; mostly grass.	
		June, 1935 Sept., 1935	.09 .036	1.07 .60	.21 .13	.67 .68	.13 .03	.30 .11	5.1 3.4	36.0 39.8	4.10 2.62	Grass, brown, leafy. Grass, brown, long and bush ; mostly grass.	
Zoetrehlen....	Middelburg....	Jan., 1934 April, 1934 July, 1934 Oct., 1934	.14 .13 .078 .032	.36 .29 .70 .15	.24 .18 .09 .05	2.12 1.01 .85 .17	.03 .80 .01 trace	.16 7.1 .10 .03	6.9 35.7 4.8 35.8	42.3 4.54 2.32 35.8	Grass, mainly green, long. Grass, brown, leafy. Grass, brown, leafy. Grass, mainly green, long.		
		Jan., 1935 April, 1935 July, 1935 Oct., 1935	.058 .043 .044 .056	.24 .18 .20 .19	.10 .08 .11 .05	.75 .46 .51 .56	.02 .07 .02 .03	.18 1.1 .14 .07	4.1 3.1 3.2 4.4	36.9 34.9 39.7 37.3	1.12 1.57 1.39 1.73	Grass, mainly green, leafy. Grass, brown, leafy. Grass, brown, leafy. Grass, brown, leafy.	
Dorpplaats, P.O. Roossenekal	Middelburg....	Nov., 1933 Feb., 1934	.081 .090	.22 .42	.10 .17	.76 1.37	.15 .02	.35 .24	6.2 8.4	39.7 31.2	2.55 3.22	Grass, mainly green, and bush ; mostly grass.	
		May, 1934 Aug., 1934 Nov., 1934	.033 .034 .15	.37 .40 .36	.14 .11 .16	.47 .19 1.60	trace trace trace	.14 2.4 .18	3.0 2.4 12.8	35.7 34.0 27.7	1.90 1.61 3.44	Grass, mainly brown. Grass, brown, leafy. Grass, mainly green, short, and bush ; mostly grass.	
		Feb., 1935 May, 1935 Aug., 1935	.15 .05 .059	.45 .34 .39	.10 .12 .13	1.31 .34 .38	.23 .02 trace	8.1 3.2 .14	29.6 39.5 36.2	3.91 1.95 2.36	Grass, green, leafy. Grass, leafy. Grass, brown.		

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
De Lagersdrift No. 106	Middelburg . . .	Dec., 1933	.10	.32	.15	.92	.02	.21	6.8	37.5	2.46	Grass, mainly green, short, and bush ; mostly grass.
		Mar., 1934	.093	.77	.21	.83	.02	.15	6.6	33.5	4.07	Grass, mainly brown, leafy.
		June, 1934	.042	.39	.13	.28	trace	.07	2.4	32.4	1.78	Grass, mainly brown, leafy.
		Sept., 1934	.044	.47	.12	.12	trace	.02	3.7	31.3	2.08	Grass, green, leafy.
		Dec., 1934	.11	.36	.14	1.60	.03	.34	8.7	29.1	4.00	Grass, mainly green, leafy.
		Mar., 1935	.11	.39	.15	1.02	trace	.17	6.0	35.3	3.11	Grass, mainly green, leafy.
		June, 1935	.077	.43	.14	.24	trace	.07	2.7	31.5	2.22	Grass, brown, short.
Diepkloof No. 539	Middelburg . . .	Sept., 1935	.029	.37	.11	.21	.04	.06	2.4	33.1	2.12	Grass, brown, short.
		Jan., 1934	.18	.34	.15	1.88	.03	.27	8.1	35.6	4.17	Grass, mainly green.
		April, 1934	.22	.28	.12	1.00	.02	.04	6.0	37.4	2.72	Grass, brown.
		July, 1934	.066	.31	.10	.32	trace	.07	38.9	38.9	1.91	Grass, brown, long.
		Oct., 1934	.13	.28	.09	.47	.02	.07	2.4	41.2	1.98	Grass, green, leafy.
		Jan., 1935	.17	.31	.15	1.61	.05	.55	9.4	30.7	3.87	Grass, mainly green, long.
		April, 1935	.087	.38	.17	1.88	trace	.61	4.6	35.8	4.17	Grass, brown, leafy.
		July, 1935	.092	.34	.12	.81	.02	.15	2.7	34.9	1.90	Grass, brown, leafy.
		Oct., 1935	.058	.40	.08	.43	trace	.05	2.5	31.0	1.91	Grass, brown, leafy.
		Dec., 1933	.13	.27	.21	1.52	.03	.25	9.7	31.4	3.30	Grass, mainly green, short.
Olifantslaagte No. 115, P.O. Leeuwkloip	Middelburg . . .	Mar., 1934	.079	.39	.17	.83	trace	.15	6.9	32.9	2.41	Grass, green, short.
		Sept., 1934	.037	.21	.07	.13	—	—	3.9	35.6	1.12	Grass, brown, leafy.
		Nov., 1933	.065	.21	.09	.48	.02	.13	4.1	37.1	1.83	Grass, short.
Elandspruit N.G. 507	Middelburg . . .	Feb., 1934	.065	.21	.16	1.16	.03	.24	6.4	33.8	2.42	Grass, mainly green, short.
		May, 1934	.030	.24	.13	.51	trace	.14	3.0	36.6	1.78	Grass, mainly brown, short.
		Aug., 1934	.047	.31	.13	.38	.01	.08	4.1	32.8	2.35	Grass, brown, short.
		Dec., 1934	.12	.22	.11	1.57	.07	—	—	32.7	3.27	Grass, green, short.
		Mar., 1935	.075	.17	.10	.55	trace	.10	5.7	34.6	1.78	Grass, mainly green, short.
		June, 1935	.073	.12	.06	.27	trace	.06	3.1	33.5	1.00	Grass, mainly brown, short.
		Sept., 1935	.028	.11	.05	.27	.02	.09	3.3	32.4	1.01	Grass, brown, short.
		Nov., 1933	.11	.24	.16	1.59	.08	.40	7.2	34.0	3.45	Grass, green, mostly grass.
		Feb., 1934	.10	.16	.13	1.48	.13	.42	6.1	39.5	2.91	Grass, mainly green, and bush ; mostly grass.
		May, 1934	.07	.22	.17	.85	.13	.40	3.6	39.6	2.25	Grass, brown.
Waterhoutbosch No. 523, P.O. Graskop	Pilgrimsvret . . .	Aug., 1934	.037	.24	.12	.15	trace	.02	2.3	43.3	1.25	Grass, brown.
		Nov., 1934	.079	.27	.17	.95	.03	.30	6.2	38.0	2.49	Grass, mainly green, leafy.
		July, 1935	.057	.30	.13	.39	.03	.12	3.4	38.2	2.15	Grass, mainly brown, short.
		Oct., 1935	.050	.23	.08	.29	.02	.03	3.5	38.1	1.81	Grass, brown, short.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Pro- tein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.
Inlaka No. 251, Bushbuckridge	Pilgrimsvret....	Dec., 1933 Mar., 1934	.12 .088	.25 .30	.19 .16	.56 .30	.05 trace	.44 .30	7.1 6.9	36.2 42.5	3.30 2.69	Grass, mainly green. Grass, mainly green, and bush; mostly grass.
		June, 1934	.066	.27	.12	.73	.01	.17	3.7	36.0	1.88	Grass, brown.
		Sept., 1934	.030	.24	.10	.06	.02	.03	3.3	36.1	1.14	Grass, leafy.
		Dec., 1934	.061	.19	.09	.58	.03	.07	5.5	35.3	2.13	Grass, short.
		Mar., 1935	.12	.26	.13	.44	.03	.32	6.0	34.4	2.71	Grass, mainly brown, leafy.
		June, 1935	.069	.32	.17	.85	.06	.27	4.4	38.2	2.49	Grass, brown, short.
		Sept., 1935	.067	.32	.18	.30	.07	.51	5.3	40.3	2.98	Grass, mainly brown, leafy.
Buffelskrook No. 425, P.O. Cottondale	Pilgrimsvret....	Jan., 1934 April, 1934 Oct., 1934	.27 .16 .055	.18 .26 .37	.12 .15 .41	.62 .31 .41	.47 .19 .03	.53 .39 .11	8.7 7.0 3.7	39.3 37.1 36.0	3.50 3.40 1.86	Grass, green. Grass, mainly green. Grass, mainly brown.
		Feb., 1935	.11	.36	.22	.35	.20	.48	6.2	34.2	3.52	Grass, mainly green.
		May, 1935	.11	.40	.22	.27	.11	.37	5.1	35.4	3.38	Grass, mainly green.
		Aug., 1935	.093	.34	.15	.46	.02	.14	2.7	40.8	1.67	Grass, mainly brown.
Steelpoortdrift No. 684, P.O. Burgersfort	Lydenburg.....	Nov., 1933 Feb., 1934	.26 .28	1.00 1.39	.54 .62	3.30 3.13	.17 .21	.16 .61	22.5 16.4	23.2 24.5	10.10 11.10	Grass and bush; mostly bush.
		May, 1934	.12	1.33	.37	1.81	.05	.31	11.3	26.5	6.69	Grass, green, and bush; mostly bush.
		Aug., 1934	.077	.56	.17	.99	.03	.16	6.0	31.8	3.02	Bush.
		Feb., 1935	.18	1.05	.27	1.78	.08	.74	11.3	32.3	5.98	Grass, brown, long, and bush.
		May, 1935	.13	1.34	.52	2.01	.06	.48	10.5	33.0	7.58	Grass, green, and bush; mostly bush.
		Aug., 1935	.084	.42	.23	.87	.11	.48	5.2	38.2	2.96	Grass, brown.
Blouwblommetjies- kloof No. 399	Lydenburg.....	Dec., 1933 Mar., 1934	.17 .14	1.36 1.71	.29 .52	2.29 1.51	.35 .41	.34	12.6 11.8	27.9 28.2	7.53 8.04	Grass, mainly green, and bush; mostly grass, mostly bush; mostly bush.
		June, 1934	.093	2.59	.65	1.46	.11	.40	11.7	33.7	10.10	Bush.
		Sept., 1934	.080	3.57	.66	1.12	.45	.70	17.1	30.2	17.10	Bush.
		Mar., 1935	.19	1.76	.65	2.14	.58	.64	15.8	27.9	10.15	Bush.
		June, 1935	.16	2.17	.57	1.80	.18	.22	13.3	29.1	9.86	Bush.
		Sept., 1935	.09	2.22	.58	1.10	.27	.75	10.0	29.3	9.32	Bush.
Schoonoord 774	Lydenburg.....	Jan., 1934 April, 1934	.096 .10	.70 1.19	.27 .39	1.62 1.04	.03 .04	.51	10.7 12.8	33.4 30.3	6.86 4.88	Grass, mainly green. Grass, mainly green, leafy and bush.
		July, 1934	.048	.46	.25	.61	.02	.11	6.4	31.1	4.02	Bush.
		Oct., 1934	.16	.91	.26	1.39	.04	.28	14.1	21.2	5.16	Bush.
		April, 1935	.090	1.01	.38	.57	.02	.19	8.0	32.4	4.34	Grass, mainly green and bush.
		July, 1935	.096	1.77	.40	.86	.06	.40	11.3	28.3	6.48	Bush.
		Oct., 1935	.17	.69	.25	1.16	.03	.25	13.2	24.3	4.36	Grass, leafy and bush; mostly bush.

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Fibre.	Crude Protein.	Solu- ble Ash.	Description of Sample.
Weltevreden No. 743, P.O. Rustplaats	Lydenburg.....	Nov., 1933	.15	.27	.15	.77	.04	.56	7.7	33.5	3.96	Grass, mainly green.
		Feb., 1934	.092	.26	.12	.80	.03	.18	5.0	39.5	2.22	Grass, mainly green.
		May, 1934	.039	.18	.07	.61	trace	.09	2.9	41.0	1.50	Grass, mainly brown, long.
		Aug., 1934	.047	.22	.08	.45	.01	.09	2.5	40.3	1.38	Grass, brown, long.
		Oct., 1934	.22	.30	.22	.26	.05	.73	9.6	31.7	4.34	Grass, green.
		Feb., 1935	.064	.18	.07	.81	.02	.16	3.8	38.5	1.62	Grass, mainly green, long.
		April, 1935	.072	.28	.16	.76	.05	.17	2.9	37.7	2.12	Grass, long.
		Sept., 1935	.052	.44	.16	.36	.05	.11	3.2	34.9	2.23	Grass, brown.
Uitspanning No. 502, P.O. Vaalhoek	Pilgrimsvret....	Dec., 1933	.23	.34	.20	.23	.05	.39	15.1	31.2	5.17	Grass, green.
		Mar., 1934	.052	.14	.09	.84	.01	.14	3.7	42.2	1.70	Grass, long.
		June, 1934	.038	.18	.06	.42	trace	.10	3.7	38.5	2.70	Grass, mainly brown.
		Sep., 1934	.038	.12	.06	.39	.02	.04	3.2	42.5	1.03	Grass, brown, long.
		Jan., 1935	.058	.14	.09	.70	.02	.14	4.4	40.0	1.38	Grass, mainly green.
		May, 1935	.056	.29	.13	.42	.02	.11	2.9	40.7	1.69	Grass, mainly brown.
Krugerspost.....	Lydenburg.....	April, 1934	.050	.21	.14	.75	.01	.14	4.1	42.2	1.85	Grass, mainly brown, long.
		July, 1934	.036	.23	.11	.36	trace	.11	2.5	41.0	1.70	Grass, brown, long.
		Nov., 1934	.065	.23	.09	.59	.02	.10	4.9	39.3	1.55	Grass, mainly green.
		Mar., 1935	.084	.17	.11	.11	trace	.13	4.9	39.2	2.30	Grass, mainly green, long.
Kraskloof No. 143, P.O. Krugerspost	Lydenburg.....	Nov., 1933	.14	.22	.14	.15	.04	.28	9.6	32.6	2.87	Grass, mainly green.
		Feb., 1934	.12	.22	.10	.23	.03	.15	8.5	37.5	2.55	Grass.
		June, 1934	.081	.41	.11	.57	.02	.12	7.5	34.7	2.21	Grass, mainly brown, leafy.
		Nov., 1934	.14	.25	.14	.26	.04	.27	11.1	35.2	2.82	Grass, green.
		May, 1935	.036	.23	.10	.27	trace	.07	3.7	40.1	1.52	Grass, mainly brown, leafy.
		Aug., 1935	.059	.26	.08	.16	trace	.06	3.2	38.8	1.30	Grass, brown, short.
Kraibosch No. 145	Lydenburg.....	Dec., 1933	.10	.18	.13	.20	.04	.19	7.3	33.1	2.27	Grass, green.
		Mar., 1934	.083	.21	.14	.78	.03	.18	7.0	35.5	1.88	Grass, mainly green.
		May, 1934	.036	.31	.18	.43	.01	.08	4.3	38.2	1.55	Grass, mainly brown, leafy.
		June, 1934	.076	.27	.08	.37	trace	.07	3.9	37.2	1.86	Grass, brown, leafy.
		Sept., 1935	.036	.23	.07	.09	.09	.08	3.3	34.6	1.24	Grass, brown, short.
Sterkspoort No. 159	Lydenburg.....	Jan., 1934	.18	.27	.13	.24	.06	.26	6.2	36.4	3.37	Grass, green.
		April, 1934	.081	.22	.17	.95	.03	.16	6.1	36.7	2.23	Grass, mainly green.
		July, 1934	.049	.45	.13	.30	.02	.10	2.8	38.4	1.75	Grass, brown.
		July, 1935	.043	.29	.10	.17	.01	.08	2.9	42.5	1.38	Grass, brown, short.
		Oct., 1935	.17	.43	.19	1.64	.04	.47	13.4	34.7	3.49	Grass, green, leafy.
The Retreat.....	Barberton.....	Dec., 1933	.12	.34	.15	.87	.03	.62	5.4	35.4	2.57	Grass, mainly green.
		Mar., 1934	.10	.34	.16	1.03	.01	.32	5.6	33.9	2.94	Grass, short.
		June, 1934	.044	.34	.19	.71	.01	.30	2.4	35.0	2.57	Grass, mainly brown, short.
		Aug., 1934	.047	.33	.17	.34	trace	.09	3.1	37.2	1.71	Grass, mainly brown, short.
		Nov., 1934	.072	.31	.08	.48	.04	.13	3.4	36.5	2.06	Grass, brown, short.
		Feb., 1935	.11	.44	.17	1.13	.05	.33	6.8	32.7	3.43	Grass, mainly green, short.
		April, 1935	.052	.38	.16	.84	trace	.08	5.4	36.9	2.68	Grass, mainly green, leafy.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Goedehoop No. 259	Barberton.....	Jan., 1934	.18	.32	.23	1.17	.03	.29	7.0	36.8	3.38	Grass, short.
		April, 1934	.18	.26	.25	1.06	.04	.20	6.3	39.1	2.98	Grass, short.
		July, 1934	.17	.21	.14	1.01	.03	.20	5.7	37.9	2.53	Grass, short.
		Oct., 1934	.12	.19	.12	.50	.03	.08	3.0	36.8	1.68	Grass, brown, short.
		Jan., 1935	.12	.31	.30	1.03	.03	.35	4.9	37.6	2.80	Grass, mainly green, leafy.
My Own No. 98..	Barberton.....	Feb., 1934	.096	.27	.29	.96	.05	.34	6.6	35.2	2.74	Grass, mainly green.
		May, 1934	.064	.21	.21	.54	.03	.23	5.3	35.4	1.82	Grass, short.
Sabieshoek No. 135, P.O. Sabie	Pilgrimsrest....	Nov., 1933	.16	.35	.27	1.86	.14	.64	10.3	34.2	4.59	Grass, green.
		Feb., 1934	.089	.26	.19	1.08	.13	.27	5.4	36.6	2.97	Grass, mainly green, short.
		May, 1934	.10	.25	.29	1.19	.03	.18	5.8	35.3	2.64	Grass.
		Aug., 1934	.065	.21	.14	.51	.01	.07	3.2	45.5	1.76	Grass, brown.
		Nov., 1934	.14	.24	.18	1.55	.06	.38	10.0	35.5	3.28	Grass, green, leafy.
		Aug., 1935	.091	.27	.13	.51	trace	.08	3.0	41.8	1.82	Grass, brown.
		Nov., 1935	.14	.48	.15	1.39	trace	.32	7.1	34.6	3.56	Grass, green, leafy.
Rietfontein No. 84 P.O. Sabie	Pilgrimsrest....	Dec., 1933	.079	.37	.16	.92	.03	.33	6.4	36.6	3.57	Grass, mainly brown.
		April, 1934	.11	.30	.14	1.25	.03	.27	5.7	33.2	2.88	Grass.
		July, 1934	.065	.44	.18	.66	.02	.20	5.1	36.2	2.38	Grass, mainly brown and bush; mostly grass.
		Oct., 1934	.058	.31	.13	.55	.05	.19	4.5	35.1	2.20	Grass.
		July, 1935	.067	.27	.12	.23	.04	.08	4.1	39.6	1.53	Grass, brown, leafy.
Lot No. 30, P.O. Goudstroom	Pilgrimsrest....	Oct., 1935	.087	.20	.06	.70	.01	.11	13.0	33.2	2.48	Grass, leafy.
		Dec., 1934	.15	.42	.23	1.99	.04	.54	6.4	39.0	4.76	Grass, mainly green.
		April, 1934	.088	.23	.16	1.28	.03	.38	5.7	36.6	2.82	Grass.
		June, 1934	.077	.25	.12	.93	.02	.31	3.6	39.0	2.29	Grass, mainly brown.
		Sept., 1934	.043	.25	.18	.39	trace	.10	3.2	41.7	1.75	Grass, mainly brown.
		Dec., 1934	.11	.22	.15	1.96	.05	.45	8.5	36.5	3.53	Grass, green.
		June, 1935	.08	.27	.14	.40	.02	.09	3.9	38.8	1.63	Grass, brown, leafy.
		Sept., 1935	.046	.21	.11	.38	.03	.07	4.0	37.9	1.75	Grass, brown, short.
		Dec., 1935	.09	.28	.15	1.15	.04	.27	6.5	35.0	3.38	Grass, mainly green.
		Dec., 1933	.14	.42	.36	2.27	.11	.73	10.1	31.5	5.32	Grass, green, short.
Louisville, P.O. Louws Creek	Barberton.....	Mar., 1934	.061	.35	.18	1.22	.02	.33	4.2	36.5	2.83	Grass, mainly green.
		July, 1934	.071	.27	.19	.62	.20	.50	4.7	36.9	2.42	Grass, leafy.
		Jan., 1935	.20	.32	.21	1.95	.22	.52	5.4	34.7	4.18	Grass, mainly green, leafy.
Lancaster, P.O. Eureka	Barberton.....	Feb., 1934	.13	.25	.24	.97	.09	.29	—	36.8	2.47	Grass, green.
		Aug., 1934	.093	.65	.32	.81	.07	.21	6.7	35.1	3.34	Grass, mainly brown and bush; mostly grass.
		Nov., 1934	.17	.32	.15	.95	.02	.25	6.3	36.5	2.76	Grass, mainly green, leafy.
	Barberton.....	Feb., 1935	.17	.37	.24	2.29	.16	.42	11.7	34.0	4.54	Grass, green, leafy.
		May, 1935	.12	.42	.37	1.75	.20	.69	9.2	36.4	4.54	Grass, green.

AREA 9 (*continued*).

Farm,	District,	Date,	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein,	Crude Fibre,	Soluble Ash,	Description of Sample.
Albert Home, P.O. Louws Creek	Barberton.....	Sept., 1934 Dec., 1934 Mar., 1935	.052 .065 .14	.31 .21 .37	.09 .30 .18	.26 .73 .29	.01 .52 .09	.09 .65 .32	3.5 39.4 35.3	1.60 2.80 3.82	Grass, mainly brown. Grass, mainly green, leafy. Grass, green.	
Stekelspruit, P.O. Hectorspruit	Barberton.....	Dec., 1933 Mar., 1934 July, 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.15 .15 .082	.38 .66 .46	.38 .76 .75	.18 .22 .25	.25 .06 .05	.94 .61 .22	7.5 9.2 5.5	6.15 4.93 2.69	Grass and bush; mostly grass, mostly grass; Grass and bush; mostly grass, mostly grass; Grass, mainly green, mostly green, mostly green.	
Buffelspruit, P.O. Hectorspruit	Barberton.....	Jan., 1934 April, 1934 June, 1934 Sept., 1934 Dec., 1934 Mar., 1935 June, 1935 Sept., 1935	.13 .11 .11 .031 .12 .084 .057 .048	.34 .49 .78 .48 .50 .37 .34 .23	.30 .23 .53 .11 .21 .29 .20 .23	.51 .99 .51 .13 .64 .56 .26 .18	.25 .63 .06 .03 .12 .09 .04 .13	.75 .80 .34 .03 .53 .13 .11 .31	8.5 6.1 8.4 1.03 7.5 5.2 3.2 2.9	38.2 35.8 32.0 40.8 35.9 40.6 38.9 42.3	5.53 5.04 4.81 1.82 3.78 2.53 1.77 1.65	Grass and bush; mostly grass, mostly grass; Grass and bush; Grass, brown, long. Grass, mainly green and bush; mostly grass, mostly brown; Grass, brown, long.
Richtershoek P.O. Hectorspruit	Barberton.....	Feb., 1934 May, 1934 Aug., 1934 Oct., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.32 .15 .073 .24 .13 .054 .049 .084	.31 .63 .21 .75 .38 .31 .22 .29	.17 .33 .28 .144 .20 .14 .10 .09	.46 .86 .44 .13 .63 .91 .23 .18	.17 .04 .13 .13 .19 .15 .02 .04	.46 .25 .38 .36 .08 .37 .09 .04	7.2 9.7 4.4 10.3 9.6 4.1 3.0 2.7	38.7 32.2 42.8 32.3 37.8 40.4 45.5 39.3	5.07 3.71 2.50 5.02 5.32 2.85 1.26 1.33	Grass, mainly green. Grass, mainly green and bush. Grass, mainly brown, long. Grass and bush. Grass, green. Grass, mainly green, long. Grass, brown, long. Grass, brown, long.
Wilsonskop No. 303 Hectorspruit	Barberton.....	Dec., 1933 June, 1934 Sept., 1934 Dec., 1934 July, 1935 Sept., 1935	.079 .087 .029 .059 .082 .047	.31 .36 .15 .26 .36 .28	.18 .23 .10 .07 .27 .20	1.05 1.40 .10 .07 .89 .11	.08 .16 .06 .12 .15 .11	.38 .45 .05 .15 .32 .41	6.7 4.9 2.4 5.3 38.2 42.7	40.1 38.7 3.50 1.01 2.24 2.36	2.69 38.7 39.0 1.01 1.24 2.01	Grass, mainly green, long. Grass, mainly green, long. Grass, brown, long. Grass, long. Grass, mainly brown. Grass, brown, long.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 9 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Mauricedale, P.O. Hectorspruit	Barberton.....	Jan., 1934	—	.18	.15	1.19	.48	—	6.3	42.2	2.95	Grass, mainly green, long.
		Aug., 1934	.056	.29	.16	.48	.14	.23	4.3	37.5	1.81	Grass, mainly brown.
		Nov., 1934	.12	.72	.21	1.13	.06	.27	8.6	33.3	3.67	Grass, long and bush; mostly grass.
Thankerton, No. 268 Hectorspruit	Barberton.....	Oct., 1935	.047	.17	.08	.25	.05	.04	3.3	39.4	1.24	Grass, brown, long.
		Feb., 1934	.10	.23	.16	1.49	.49	.70	6.4	32.4	3.93	Grass, mainly green.
		July, 1934	.074	.25	.24	1.03	.20	.06	5.5	38.0	2.85	Grass, long.
		Oct., 1934	.071	.40	.23	.26	.11	.09	3.5	35.6	2.10	Grass, brown, long.
Figtree.....	Barberton.....	June, 1935	.058	.30	.22	.44	.13	.41	3.9	35.1	2.52	Grass, long.
		Dec., 1933	.26	.51	.38	3.35	1.02	1.34	11.6	33.8	9.00	Grass, green.
		Oct., 1934	.082	.25	.35	.57	.40	.28	6.6	39.8	2.74	Grass, mainly brown, long.
		Dec., 1934	.15	.32	.14	1.17	.25	.47	6.0	37.0	3.28	Grass, mainly green, long.
		Jan., 1935	.17	.31	.23	1.73	.31	.62	9.3	34.7	4.00	Grass, green, leafy.
Squamans.....	Barberton.....	April, 1935	.15	.30	.22	.92	.34	.35	5.3	37.6	3.15	Grass,
		April, 1934	.25	.33	.29	.80	1.06	.65	7.2	37.8	3.59	Grass,
		Nov., 1934	.056	.24	.11	.21	.02	.07	3.0	40.3	1.21	Grass, brown.
		Feb., 1935	.14	.25	.12	1.30	.07	.33	4.8	36.2	2.77	Grass, mainly green.
Coopersdal.....	Barberton.....	May, 1935	.11	.27	.12	.73	.08	.18	4.4	36.3	2.26	Grass, mainly brown, leafy.
		Feb., 1934	.22	.38	.31	1.88	.69	1.11	7.8	33.9	5.74	Grass, short.
		July, 1934	.062	.53	.15	.11	.05	.06	4.8	38.1	2.38	Grass, brown.

## AREA 10.

P. J. DU TOIT, J. G. LOUW AND A. I. MALAN.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Leguwdraai, P.O. Mokeetsi	Letaba.....	Jan., 1934 April, 1934 July, 1934 Nov., 1934 April, 1935 Aug., 1935	.074 .077 .044 .086 .090	.50 .33 .42 .21 .29 .44	.23 .19 .13 .10 .16 .18	.26 .62 .32 .15 .38 .38	.04 .06 .02 .02 .06	— .37 .17 .11 .34 .36	5.9 4.8 3.6 2.6 4.1 2.4	41.4 34.8 39.4 40.3 35.3 36.3	5.91 3.10 2.14 2.10 2.51 2.00	Grass, Grass and bush; mostly grass, brown. Grass, brown, long. Grass, mainly green, long. Grass, brown.
Minden, P.O. Rub- bervale	Letaba.....	Nov., 1933 Feb., 1934 May, 1934 Sept., 1934 Mar., 1935 June, 1935 Sept., 1935	.14 .16 .28 .054 .14 .15 .22	.47 .24 .41 .21 .30 .38 .42	.18 .20 .21 .21 .31 .20 .15	.125 .178 .24 .19 .19 .05 .70	.05 .05 .07 .03 .05 .03 .05	.30 .44 .36 .07 .25 .25 .21	7.7 6.4 5.6 3.2 4.8 4.6 3.9	36.3 36.6 35.4 38.5 35.1 35.5 39.8	3.46 3.63 3.74 1.64 2.85 2.85 2.62	Grass, mainly brown, and bush. Grass, mainly green, leafy and bush; mostly grass. Grass, mainly brown. Grass, mainly green, leafy. Grass, mainly brown, leafy. Grass, brown, leafy.
National, P.O. Rubbergrove	Letaba.....	Dec., 1933 Mar., 1934 June, 1934 Oct., 1934 Nov., 1934 April, 1935 July, 1935 Oct., 1935	.11 .14 .27 .15 .26 .12 .10 .10	.28 .39 .46 .32 .40 .26 .29 .33	.13 .21 .20 .12 .30 .13 .20 .23	.70 .73 .77 .12 .45 .09 .56 .51	.24 .08 .14 .02 .13 .13 .02 .06	.52 .42 .26 .03 .76 .15 .18 .17	8.4 5.2 4.3 2.7 1.72 27.9 33.7 39.9	32.6 38.5 35.2 38.7 1.72 5.37 3.37 38.0	3.77 4.00 3.20 3.20 1.72 5.37 3.37 2.54	Grass, green. Grass, mainly green. Grass, brown. Grass, green, leafy. Grass, green, leafy. Grass, mainly green, brown. Grass, mainly brown.
Toul, P.O.Rubber- vale	Letaba.....	Jan., 1934 April, 1934 July, 1934 Aug., 1934 Jan., 1935 Feb., 1935 May, 1935 Aug., 1935	.22 .062 .22 .49 .35 .43 .061 .23	.25 .35 .55 .18 .22 .25 .39 .61	.23 .22 .18 .67 .85 .84 .45 .24	.89 .67 .04 .04 .26 .184 .19 .70	.05 .04 .04 .04 .04 .06 .07 .04	.37 .18 .16 .16 .38 .7.4 .12 .17	6.5 3.9 4.2 4.2 5.9 7.4 4.2 4.9	36.0 33.9 36.5 36.5 34.7 35.4 35.6 37.2	4.04 2.06 2.85 2.85 4.16 4.36 1.95 3.13	Grass, mainly green. Grass, leafy. Grass, mainly brown, and bush; mostly grass. Grass, mainly green. Grass, green, leafy. Grass, mainly brown. Grass, brown.
Homo Lands	Crown Lands	Nov., 1933 Feb., 1934 June, 1934 Sept., 1934 Dec., 1934 Mar., 1935 June, 1935 Sept., 1935	.053 .083 .049 .091 .089 .14 .13 .086	.22 .25 .26 .22 .14 .16 .18 .20	.09 .15 .12 .14 .13 .12 .12 .11	.30 .33 .61 .36 .52 .68 .45 .61	.05 .41 .03 .09 .15 .23 .23 .61	.12 .53 .15 .15 .15 .23 .23 .02	2.8 6.8 3.4 2.9 9.3 38.8 40.8 1.8	39.2 38.5 38.5 1.61 40.6 1.64 1.75 1.60 42.3	1.46 3.29 1.61 2.9 40.6 1.64 1.75 1.60 1.69	Grass, mainly brown, green, mainly brown. Grass, brown, long. Grass, mainly brown, long. Grass, brown, long. Grass, brown, long. Grass, brown, long.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
MSimukulu Crown Lands	Letaba, . . . . .	Dec., 1933	.14	.31	.20	2.47	.53	.66	11.1	36.3	5.64	Grass, green, and bush; mostly grass.
		April, 1934	.14	.27	.25	1.61	.20	.56	8.2	37.0	3.85	Grass.
		July, 1934	.041	.23	.13	.66	.15	.32	3.7	38.4	2.10	Grass, brown, leafy.
		Nov., 1934	.088	.75	.13	1.00	.35	.44	5.3	37.8	2.65	Grass, leafy.
		Feb., 1935	.083	.20	.14	.89	.06	.28	4.6	43.3	2.15	Grass, mainly green.
		May, 1935	.062	.21	.06	.40	.02	.08	3.0	38.6	1.33	Grass, mainly brown, long.
		Aug., 1935	.056	.21	.07	.25	.01	.07	2.2	40.0	1.27	Grass, brown, long.
		Jan., 1934	.12	.31	.26	2.00	.60	.59	6.7	34.6	4.76	Grass, mainly green.
		May, 1934	.073	.35	.21	1.12	.55	.42	4.4	35.2	3.43	Grass, mainly green, leafy.
		Aug., 1934	.046	.38	.17	.39	.02	.11	2.4	39.3	1.83	Grass, mainly brown, leafy.
Hlanekie Crown Lands	Letaba, . . . . .	Oct., 1934	.053	.28	.10	.26	.02	.05	2.2	41.9	1.43	Grass, brown, leafy.
		Jan., 1935	.089	.23	.09	.60	.02	.22	3.2	38.3	1.72	Grass, mainly brown, leafy.
		April, 1935	.075	.20	.10	.61	trace	.22	3.0	38.1	1.56	Grass, brown, leafy.
		July, 1935	.092	.11	.08	.24	.02	.10	1.5	51.6	1.07	Grass, brown, long.
		Nov., 1933	.25	.40	.40	3.15	.77	1.01	17.9	28.8	8.74	Grass, green, leafy.
		Feb., 1934	.12	.22	.18	1.12	.14	.35	6.0	40.3	3.05	Grass, mainly green.
		May, 1934	.075	.96	.23	.78	.05	.27	7.3	33.2	3.92	Grass, mainly green.
		Aug., 1934	.11	1.32	.27	.60	.04	.20	6.2	34.7	4.60	Grass, brown, leafy, and bush; mostly grass.
		Nov., 1934	.10	.72	.22	.38	.02	.12	7.0	33.7	3.50	Grass, brown, and bush.
		Feb., 1935	.17	.34	.25	2.39	.15	.69	9.1	38.7	4.80	Grass, green.
Moofontein No. 442	Letaba, . . . . .	Aug., 1935	.087	1.11	.20	.85	.03	.20	4.9	34.3	6.45	Grass, brown, and bush.
		Dec., 1933	.26	.39	.35	3.90	.37	.86	14.5	31.6	7.69	Grass, green, leafy.
		Mar., 1934	.25	.47	.35	2.15	.07	.63	6.8	36.2	5.40	Grass, mainly green.
		Sept., 1934	.069	.22	.20	1.11	.05	.12	4.2	39.6	2.85	Grass, brown.
		Dec., 1934	.18	.34	.18	.82	.07	.57	6.6	37.4	3.63	Grass, long.
		Mar., 1935	.12	.90	.29	1.16	.04	.13	7.9	31.6	4.23	Grass, mainly green, and bush.
		June, 1935	.13	.99	.27	1.34	.28	.58	8.3	33.5	5.53	Grass, mainly green, and bush.
		Sept., 1935	.052	.67	.20	.35	.02	.18	2.4	38.2	2.70	Grass, brown, leafy.
		Jan., 1934	.14	.27	.21	2.89	.06	.48	6.5	39.7	—	Grass.
		April, 1934	.14	.38	.21	1.59	.07	.35	5.3	37.8	3.45	Grass.
Grootrivier . . . . .	Letaba, . . . . .	July, 1934	.12	1.44	.37	1.15	.03	.43	7.6	34.3	5.56	Grass, mainly brown, and bush.
		Oct., 1934	.12	.43	.13	.90	.10	.31	7.7	34.9	4.13	Grass, brown, and bush.
		April, 1935	.12	.66	.16	1.17	.03	.22	7.3	30.7	3.45	Grass and bush; mostly grass.
		July, 1935	.11	.54	.24	1.40	.08	.35	6.0	35.7	4.12	Grass and bush.
		Oct., 1935	.10	.74	.23	.74	.02	.11	7.6	33.9	3.89	Grass, brown, and bush; mostly grass.
		Jan., 1934	.14	.27	.21	2.89	.06	.48	6.5	39.7	—	Grass.
		April, 1934	.14	.38	.21	1.59	.07	.35	5.3	37.8	3.45	Grass.
		July, 1934	.12	1.44	.37	1.15	.03	.43	7.6	34.3	5.56	Grass, mainly brown, and bush.

AREA 10 (*continued*).

P. J. DU TOIT, J. G. LOUW AND A. I. MALAN.

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Breakfast No. 1190	Letaba.....	Nov., 1933 Feb., 1934	.21 .12	.64 .42	.24 .34	.247 2.91	.10 .41	.43 .36	17.7 10.9	31.3 33.3	6.28 7.50	Grass and bush; mostly grass.
		Aug., 1934 Feb., 1935	.067 .12	.66 .58	.22 .19	.59 1.69	.12 .15	.27 .37	5.6 9.2	36.8 35.1	2.99 4.13	Grass, mainly brown, and bush; Grass, green, and bush; mostly grass.
Carthage No. 2018	Letaba.....	Dec., 1933 Mar., 1934 May., 1934	.23 .15 .062	.74 .98 .44	.42 .26 .31	.52 1.23 2.15	.06 .20 .29	.56 .47 .26	9.4 6.5 7.6	32.6 36.7 31.5	9.03 4.81 5.13	Grass and bush. Grass and bush. Grass, leafy, and bush; mostly grass.
		Sept., 1934	.089	.33	.21	.70	.10	.27	8.6	37.6	2.22	Grass, mainly brown, and bush; mostly grass.
Setali Ranch No. 300	Letaba.....	Jan., 1934 April, 1934 April, 1935	.19 .093	.422 .64	.26 .25	.88 4.45 1.57	.07 .15 .24	— .44 .49	7.8 16.7 5.8	34.1 26.3 37.6	4.58 11.08 4.45	Grass and bush; mostly grass. Grass, leafy, and bush. Grass.
Schraalhans No. 2661	Letaba.....	Nov., 1933 Feb., 1934 May., 1934	.13	.35	.17	.80	.05	.55	10.5	36.7	4.42	Grass, mainly green, and bush; mostly grass.
Sedan No. 157...	Letaba.....	Nov., 1933 Mar., 1934	.22 .16	.79 .28	.25 .16	.78 1.63	.05 .04	.35 .45	7.8 7.3	37.6 36.3	3.35 3.66	Grass, mainly green.
Murlebrook.....	Letaba.....	Dec., 1933 April, 1934	.14 .16	.35 .42	.17 .19	.62 2.08	.04 .05	.47 .43	16.0 7.3	22.8 37.7	7.02 3.68	Grass, mainly green, and bush. Grass, short, and bush; mostly grass.
Mashutti No. 2324	Letaba.....	Dec., 1933 Mar., 1934 June, 1934 Sept., 1934 Dec., 1934 Sept., 1935	.15 .078 .10 .044 .08 .076	.24 .30 .30 .15 .29 .19	.15 .15 .15 .08 .09 .09	.68 .93 .53 .28 .87 .09	.03 .02 .04 .01 .trace .02	.42 .12 .34 .06 .22 .45	7.7 7.0 6.5 4.4 5.9 5.4	39.1 39.5 35.4 38.8 41.9 37.1	4.20 2.64 — 3.61 1.77 2.75	Grass, Grass, leafy, Grass, brown, Grass, long, Grass, brown.
Rooihoopte No. 2398	Letaba.....	Jan., 1934 April, 1934 July, 1934 Oct., 1934 April, 1935	.14 .062 .12 .035 .13	.25 .26 .44 .22 .38	.16 .16 .21 .06 .19	.65 1.69 1.64 .04 .30	.02 .03 .02 .02 .02	.42 9.2 .34 .02 .38	9.2 6.8 4.8 1.8 6.7	34.5 39.1 38.1 41.3 36.5	4.29 3.63 3.33 0.92 3.05	Grass, Grass, Grass, brown, long, Grass, mainly green, long, Grass, mainly green, long.
Brodersdrift No. 1932	Letaba.....	Feb., 1934 May, 1934	.14 .10	.28 .32	.15 .17	.09 1.47	.03 .04	.42 .36	8.2 5.7	38.9 39.5	3.96 2.91	Grass, mainly green, long, Grass, mainly green, long.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Dusseldorf.....	Letaba.....	Nov., 1933 Aug., 1934 Nov., 1934 Feb., 1935	.37 .12 .14 .17	.27 .27 .15 .37	.24 .20 .10 .14	.71 .43 .43 .79	.20 .06 .06 .06	.65 .58 .41 .35	10.7 4.2 5.8 6.1	33.8 36.3 35.3 35.0	7.23 3.02 3.32 3.72	Grass, mainly brown. Grass, mainly brown. Grass, green, leafy.
Pretoria Farm No. 158	Letaba.....	Dec., 1933 July, 1934 Oct., 1934 Jan., 1935	.20 .089 .11 .15	.25 .29 .38 .27	.14 .12 .26 .31	.75 .89 .56 .15	.07 .02 .17 .09	.51 .33 .28 .79	7.9 4.5 5.4 5.6	39.2 37.7 34.4 32.7	4.53 2.22 3.60 4.57	Grass, green. Grass, mainly brown, short. Grass, mainly green, short.
The Downs No. 508	Letaba.....	Jan., 1934 Sept., 1934 Dec., 1934 Mar., 1935	.17 .045 .12 .10	.29 .30 .23 .29	.19 .42 .17 .17	.52 .23 .42 .12	.03 .06 .04 .03	.33 .17 .51 .35	8.6 3.4 11.3 4.7	40.3 36.9 37.0 36.8	3.62 2.08 3.08 3.02	Grass, mainly green. Grass, brown. Grass, green, leafy. Grass, leafy.
Strangersrest.....	Letaba.....	Jan., 1934 April, 1934 Dec., 1934 Mar., 1935	.15 .14 .31 .14	.26 .50 .34 .39	.17 .15 .23 .24	.00 .73 .55 .85	.03 .06 .04 .06	.51 .45 .50 .45	7.2 5.9 8.9 6.6	39.9 35.7 37.0 33.4	3.85 3.78 3.66 3.90	Grass, mainly green. Grass, mainly green. Grass, green, leafy. Grass, mainly green.
Bontfontein No. 48	Letaba.....	April, 1934 June, 1934 Oct., 1934	.081 .095 .065	.37 .37 .30	.15 .14 .09	.63 .55 .22	.05 .02 .03	.16 .14 .04	5.9 4.0 3.4	33.7 33.9 36.1	2.19 1.83 1.47	Grass, mainly brown, leafy.
Modjadjes Location	Letaba.....	Nov., 1933 Mar., 1934 Sept., 1934	.51 .17 .11	.44 .33 .20	.11 .16 .27	.67 .34 .63	.01 .16 .07	.62 .66 .20	17.0 6.9 7.8	28.2 36.3 33.4	9.50 4.92 4.80	Grass, green. Grass, mainly green. Grass, brown, and bush.
Manitwa's Location	Letaba.....	Dec., 1933 July, 1934	.23 .22	.85 .55	.32 .20	.18 .11	.16 .07	.76 .20	16.2 5.5	32.4 33.7	8.08 3.50	Grass, mainly green, and bush; mostly grass.
Mohogone Dip Area	Letaba.....	May, 1934 Aug., 1934	.21 .12	.31 .71	.30 .22	1.81 .82	.35 .04	.60 .14	8.5 6.4	35.7 33.7	5.28 3.21	Grass, mainly green. Grass, mainly brown, and bush.
Eiland No. 1134' P.O. Rubbergrove	Letaba.....	Nov., 1933 Feb., 1934	.19 .17	.52 .39	.17 .19	1.27 .78	.14 .07	.31 .45	9.3 8.0	35.0 41.0	4.16 4.72	Grass, mainly brown, and bush. Grass and bush; mostly grass.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Pro- tein.	Crude Fibre.	Solu- ble Ash.	Description of Sample.
Bockenhoutbos, P.O. Moketsi	Letaba. . . . .	Nov., 1933	.45	.78	.29	.92	.23	.48	18.5	24.7	8.42	Grass and bush; mostly bush.
		Feb., 1934	.11	.21	.15	.78	.19	.32	5.0	38.2	3.47	Grass, mainly green.
		May, 1934	.10	.49	.29	1.96	.14	.32	6.4	35.7	4.92	Grass, mainly green, and bush; mostly grass.
		Aug., 1934	.069	.44	.16	.81	.02	.09	2.9	39.7	2.37	Grass, mainly brown, leafy.
		Oct., 1934	.091	.32	.18	.45	.04	.08	4.5	39.7	2.05	Grass, brown, leafy.
		Feb., 1935	.25	.36	.22	.27	.07	.43	7.4	36.0	4.31	Grass, green, leafy.
		May, 1935	.12	.44	.20	1.08	.10	.24	6.2	37.6	2.95	Grass and bush; mostly grass.
		July, 1935	.15	.36	.25	1.18	.19	.08	4.7	42.5	3.64	Grass.
		Oct., 1935	.06	.22	.09	.28	trace	.04	3.1	34.0	1.39	Grass, brown, leafy.
Zwartkoppies, P.O. Duivels- kloof	Letaba. . . . .	Dec., 1933	.31	.31	.21	2.39	.12	.41	12.1	32.4	5.41	Grass, green, and bush; mostly grass.
		Mar., 1934	.22	.52	.23	1.45	.09	.46	6.0	33.9	4.34	Grass, mainly green, and bush; mostly grass.
		Sept., 1934	.10	.31	.20	.60	.06	.15	3.0	39.2	2.30	Grass, brown.
		Dec., 1934	.23	.35	.32	3.42	.11	.94	13.6	33.3	6.68	Grass, green, leafy.
		Mar., 1935	.17	.33	.25	2.37	.09	.63	7.0	35.6	4.71	Grass, mainly green.
		June, 1935	.13	.58	.20	.70	.03	.19	4.6	39.0	2.88	Grass, brown, and bush; mostly grass.
		Sept., 1935	.048	.29	.14	.58	.14	.24	3.9	36.3	2.30	Grass, brown.
Macheka Location (Klein Letaba)	Zoutpansberg . .	Nov., 1933	.30	1.00	.27	2.38	.23	.65	17.0	25.5	6.98	Grass and bush.
		Feb., 1934	.20	.34	.16	1.77	.22	.48	6.3	40.3	3.74	Grass, mainly green.
		May, 1934	.13	.40	.19	1.25	.05	.13	4.9	37.2	3.51	Grass, short.
		Aug., 1934	.065	.34	.21	.54	.10	.26	2.8	39.4	2.18	Grass, mainly brown, short.
		Nov., 1934	.058	.43	.14	.28	trace	.06	3.6	39.8	2.31	Grass, brown.
		Feb., 1935	.15	.32	.14	1.20	.07	.37	4.7	38.4	2.96	Grass, mainly green.
		May, 1935	.098	.46	.22	.68	.03	.17	3.2	35.2	2.40	Grass, mainly brown.
		Aug., 1935	.093	.25	.15	.80	.06	.38	1.8	43.0	2.04	Grass, brown, long.
Maloppe Location (Klein Letaba)	Zoutpansberg . .	Jan., 1934	.19	.30	.24	2.97	.09	.71	7.5	37.0	6.60	Grass, mainly green.
		Mar., 1934	.26	.42	.31	2.51	.15	.59	10.7	34.4	5.92	Grass, short.
		June, 1934	.053	.32	.29	.79	.01	.19	4.3	40.2	2.85	Grass.
		Sept., 1934	.043	.42	.20	.32	.03	.07	3.9	40.2	2.06	Grass, brown.
		Dec., 1934	.082	.22	.22	.97	.17	.38	5.8	41.4	2.65	Grass, mainly brown, long.
		Mar., 1935	.14	.78	.19	1.25	.39	.80	8.2	31.1	4.96	Grass, mainly green, leafy.
		June, 1935	.077	.32	.25	1.00	.04	.48	5.4	36.7	3.40	Grass, leafy.
		Sept., 1935	.11	.39	.21	.45	.27	.62	3.3	44.5	2.83	Grass, brown, long.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.	
Nkunie Location (Klein Letaba)	Zoutpansberg..	Jan., 1934	.19	' .60	.24	1.81	.25	.50	9.7	36.7	5.30	Grass, mainly green, and bush ; mostly grass.	
		April, 1934	.22	.46	.26	2.16	.12	.47	6.4	35.7	5.46	Grass, short.	
		July, 1934	.22	.61	.23	1.34	.23	.51	5.4	38.9	4.09	Grass, mainly brown, and bush ; mostly grass.	
		Oct., 1934	.067	.39	.19	.34	.03	.06	3.9	36.8	3.65	Grass, brown.	
		Jan., 1935	.13	.32	.49	1.85	.23	.74	9.5	31.1	4.62	Grass, green, short.	
		April, 1935	.079	.42	.26	1.49	.15	.48	5.7	34.0	4.07	Grass, green, short.	
		July, 1935	.10	1.00	.31	1.17	.06	.29	6.7	40.8	6.06	Grass, brown, and bush.	
		Oct., 1935	.086	.66	.22	.53	.11	.14	4.4	41.3	3.46	Bush.	
		Nov., 1935	.19	.77	.22	3.73	.08	.43	10.1	32.1	5.94	Grass and bush.	
		Feb., 1934	.17	.34	.31	2.08	.16	.50	7.0	33.7	6.66	Grass.	
Kranspoort No. 1000	Zoutpansberg..	May, 1934	.12	.35	.26	1.34	.24	.59	7.1	33.0	3.56	Grass, short.	
		Dec., 1933	.14	.40	.17	1.86	.10	.49	7.0	33.1	4.67	Grass.	
Claudiushoop No. 22	Zoutpansberg..	Mar., 1934	.071	.34	.15	.99	.03	.22	5.3	35.6	2.56	Grass, mainly brown, short.	
		Altenburg.....	Jan., 1934	.13	.23	.15	.65	.02	.38	9.3	36.8	3.43	Grass and bush.
		April, 1934	.086	.56	.17	1.50	.14	.34	8.7	27.8	3.58	Grass, short and bush ; mostly grass.	
Riversdale No. 933	Zoutpansberg..	Nov., 1933	.22	.97	.34	2.74	.11	.38	16.1	27.0	7.56	Grass, mainly green, and bush ; mostly grass.	
		Feb., 1934	.087	.61	.15	1.64	.02	.45	6.6	30.3	4.25	Grass and bush ; mostly grass.	
		May, 1934	.065	.25	.08	.70	.02	.16	4.6	37.1	1.91	Grass, brown, short.	
		Aug., 1934	.039	.20	.08	.81	.01	.14	4.3	37.1	1.83	Grass, brown.	
		Nov., 1934	.061	.16	.05	.31	.03	.08	3.2	37.5	1.30	Grass, brown.	
Comformis No. 507	Zoutpansberg..	Dec., 1933	.19	.65	.30	1.92	.08	.54	7.9	36.0	5.80	Grass, mainly green, and bush ; mostly grass.	
		Mar., 1934	.11	.72	.33	2.18	.03	.46	8.2	32.7	5.88	Grass.	
		June, 1934	.048	.15	.11	.81	.02	.21	4.3	40.7	1.85	Grass, brown, long.	
		Sept., 1934	.050	.14	.07	.67	.02	.12	4.4	39.1	1.35	Grass, brown, long.	
Corea No. 663.....	Zoutpansberg..	Jan., 1934	.22	.28	.15	1.24	.03	.29	10.5	32.2	3.07	Grass, mainly green, and bush ; mostly grass.	
		April, 1934	.11	.43	.18	1.64	.14	.80	4.3	35.3	3.62	Grass, mainly brown, and bush.	
		July, 1934	.095	.22	.10	.65	.02	.08	2.7	38.8	1.79	Grass, brown, and bush ; mostly grass.	
		Oct., 1934	.052	.38	.09	.31	.02	.05	2.8	35.4	1.80	Grass, brown.	
		Jan., 1935	.042	.21	.06	.29	trace	.08	2.9	41.0	1.40	Grass, brown.	

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Tshionombo (portion Sibasa Location)	Zoutpansberg .	Nov., 1933	.14	.51	.28	1.20	.31	.17	10.8	32.2	4.00	Grass, mainly green, and bush.
		Feb., 1934	.15	.47	.30	2.13	.10	.51	18.8	35.7	5.26	Grass and bush.
		May, 1934	.11	.55	.31	1.56	.15	.37	11.0	31.9	4.64	Grass and bush.
		Aug., 1934	.18	.76	.29	.85	.11	.29	7.4	39.0	3.69	Grass, mainly brown, and bush.
		Nov., 1934	.12	.49	.29	1.74	.15	.55	9.6	35.7	4.58	Grass, long, and bush ; mostly grass.
		Feb., 1935	.20	.57	.38	2.44	.26	.65	13.3	33.9	6.24	Grass, mainly green, and bush.
		May, 1935	.18	.54	.32	1.91	.08	.34	17.0	29.4	4.94	Grass and bush ; mostly bush.
Kalaba (Portion Sibasa Location)	Zoutpansberg .	Dec., 1933	.27	.68	.28	2.41	.28	.52	13.9	28.2	6.80	Grass, mainly green, and bush ; mostly grass.
		Mar., 1934	.14	.56	.28	1.79	.11	.38	9.7	35.3	5.04	Grass and bush.
		Sept., 1934	.095	.54	.29	.67	.16	.27	7.2	34.4	2.75	Grass and bush.
		Dec., 1934	.23	.43	.23	4.03	.11	1.08	15.7	—	7.54	Grass, mainly green, leafy, and bush.
		Mar., 1935	.14	.70	.37	2.15	.11	.57	8.6	38.0	5.64	Grass and bush ; mostly grass.
		June, 1935	.16	.74	.39	1.89	.04	1.17	11.4	31.1	5.48	Grass, green, leafy, and bush ; mostly grass.
		Sept., 1935	.074	.64	.25	.53	.08	.22	6.3	34.0	3.10	Grass, brown, and bush.
She Kondo Malaria (Sibasa Location)	Zoutpansberg .	Jan., 1934	.25	.23	.21	1.67	.50	.71	6.1	40.6	4.77	Grass, long.
		April, 1934	.13	.68	.30	1.30	.16	.37	9.2	36.5	4.13	Grass and bush.
		July, 1934	.10	.06	.30	1.03	.10	.25	8.1	32.5	4.69	Grass, mainly brown, and bush.
		Oct., 1934	.10	.56	.17	.39	.17	.23	5.5	37.6	—	Grass, mainly brown, and bush ; mostly grass.
		April, 1935	.17	.43	.23	1.57	.15	.10	7.0	31.3	4.50	Grass, mainly green.
		Oct., 1935	.14	.51	.27	1.69	.06	.54	10.4	38.1	4.62	Grass, green, and bush ; mostly grass.
Driffontein No. 110	Zoutpansberg .	Nov., 1933	.21	.34	.18	2.38	.17	.61	11.3	35.2	5.12	Grass, mainly green.
		May, 1934	.16	.36	.20	1.53	.04	.35	5.1	40.4	3.39	Grass.
		Aug., 1934	.084	.28	.17	1.63	trace	.13	3.1	39.9	1.96	Grass, brown, long.
		Nov., 1934	.12	.27	.13	1.34	trace	.17	4.2	36.8	2.13	Grass, long.
		Feb., 1935	.17	.28	.16	1.85	.02	.57	5.3	40.2	2.73	Grass, brown, long.
		Dec., 1934	.10	.23	.12	.89	.03	.11	4.7	40.6	1.49	Grass, green, long.
Gevorden No. 216	Zoutpansberg .	Dec., 1933	.25	.25	.17	2.27	.07	.41	8.7	38.5	4.38	Grass, green.
		Mar., 1934	.21	.24	.18	1.40	.05	.35	4.1	38.1	3.10	Grass, mainly green.
		June, 1934	.12	.32	.13	1.34	trace	.17	4.2	36.8	2.13	Grass, mainly brown.
		Sept., 1934	.093	.16	.11	.33	.02	.57	5.3	40.6	1.49	Grass, brown, long.
		Dec., 1934	.10	.23	.12	.89	.03	.22	5.6	38.9	2.20	Grass, mainly green, long.
Doornspruit No. 199	Zoutpansberg .	Jan., 1934	.27	.22	.20	1.99	.08	.43	6.2	37.7	4.37	Grass, mainly green.
		April, 1934	.15	.25	.14	1.70	.06	.14	5.4	38.4	3.72	Grass.
		July, 1934	.092	.36	.13	.40	.04	.12	2.8	37.1	1.70	Grass, brown.
		Oct., 1934	.10	.25	.12	.37	.03	.08	2.9	39.0	1.75	Grass, mainly brown, long.
		Jan., 1935	.12	.25	.14	1.08	.08	.40	5.6	37.3	2.45	Grass, mainly green, long.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

## AREA 10 (continued).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Pepedi (Sibasa)...	Zoutpansberg...	Nov., 1933	.22	.72	.30	1.62	.08	.20	15.9	22.7	5.53	Bush, and bush; mostly grass.
		Feb., 1934	.14	.49	.30	1.76	.16	.51	10.2	34.1	4.56	Grass, brown, long, and bush;
		Aug., 1934	.048	.61	.32	.39	.01	.09	3.5	43.7	2.43	mostly grass.
		Jan., 1935	.18	.31	.20	2.70	.09	.79	8.8	34.3	4.86	Grass, green, long,
		April, 1935	.14	.44	.29	1.60	trace	.32	8.3	39.6	3.73	Grass and bush; mostly grass.
		July, 1935	.076	.62	.22	.82	.03	.25	5.1	37.3	3.08	Grass, brown, long, and bush.
		Oct., 1935	.076	.50	.17	.73	.03	.11	6.0	38.8	2.73	Grass, brown, long, and bush.
Natal House (Sibasa)	Zoutpansberg...	Dec., 1933	.23	.53	.40	1.87	.18	.41	9.8	33.8	5.50	Grass, mainly green.
		Oct., 1934	.091	.34	.11	.38	.01	.09	3.2	42.2	1.86	Grass, brown, long.
		Feb., 1935	.13	.67	.34	2.29	.22	.61	9.9	30.6	6.15	Grass and bush.
		May, 1935	.14	.43	.15	.87	.07	.19	5.2	36.3	2.95	Grass, long, and bush.
		Aug., 1935	.09	.83	.24	.81	.05	.21	6.7	34.3	3.41	Grass, mainly brown, and bush; mostly bush.
Sterkstroom (Sibasa)	Zoutpansberg...	Jan., 1934	.16	.57	.31	2.41	.07	.40	9.6	37.9	5.49	Grass, mainly green.
		April, 1934	.18	.41	.27	2.10	.09	.60	7.8	36.1	4.90	Grass, mainly green.
		July, 1934	.11	.34	.25	1.06	.04	.26	10.5	29.1	4.85	Grass, and bush; mostly bush.
		Mar., 1935	.077	.31	.12	.53	.02	.04	5.5	43.6	4.18	Grass, brown, short, and bush.
		June, 1935	.088	.79	.21	.67	.02	.19	6.5	38.2	3.32	Grass, brown, long, and bush.
Mampaknill No. 225	Zoutpansberg...	Nov., 1933	.31	.40	.28	2.71	.60	.77	12.9	31.5	6.90	Grass, mainly green, short.
		Feb., 1934	.084	.26	.19	1.33	.36	.34	5.2	36.6	3.19	Grass.
		May, 1934	.095	.31	.15	.65	.17	.28	5.1	39.0	2.17	Grass.
		Aug., 1934	.082	.20	.07	.25	.08	.05	3.8	37.9	1.20	Grass, brown.
		Nov., 1934	.079	.17	.07	.42	.04	.08	5.0	36.0	1.39	Grass, brown.
		Feb., 1935	.18	.40	.20	2.27	.37	.75	12.7	30.7	5.27	Grass, green, short.
		May, 1935	.15	.40	.14	1.11	.24	.46	6.4	30.7	3.41	Grass, short.
		Aug., 1935	.08	.27	.11	.55	.06	.18	6.1	31.2	2.46	Grass, brown, short.
Rustgeog No. 42	Zoutpansberg...	Jan., 1934	.13	.83	.39	2.12	.29	.77	11.0	30.8	6.46	Grass, mainly green.
		Mar., 1934	.11	.56	.28	.94	trace	.15	8.2	32.0	3.17	Grass and bush.
		Jun., 1934	.031	.16	.06	.21	.02	.03	3.3	39.1	0.98	Grass, brown, long.
		Sept., 1934	.045	.23	.07	.26	.04	.05	4.3	38.3	1.29	Grass, brown, long.
		Dec., 1934	.25	.17	.44	2.38	.09	.29	20.6	25.0	8.04	Bush.
		Mar., 1935	.17	.58	.54	1.65	.13	.35	13.0	28.9	6.14	Grass, mainly green, leafy
Eastlyme.....	Zoutpansberg...	Feb., 1934	.20	.21	.16	1.91	.19	.56	6.8	34.7	4.31	Grass, mainly green.
		April, 1934	.10	.22	.14	.88	.15	.38	4.2	40.7	2.18	Grass.
		July, 1934	.16	.31	.10	.70	.09	.28	5.6	33.2	2.48	Grass, mainly brown, short.
		Oct., 1934	.062	.33	.18	.79	.05	.04	3.2	37.5	1.68	Grass, mainly brown.
		Jan., 1935	.11	.26	.16	1.01	.09	.41	6.0	37.7	2.47	Grass, mainly green.
		April, 1935	.078	.21	.18	.72	.09	.18	4.0	35.7	2.13	Grass, long.
		July, 1935	.058	.27	.16	.48	.07	.16	3.3	38.5	2.06	Grass, brown.
		Oct., 1935	.036	.25	.10	.30	.05	.04	3.0	40.9	1.69	Grass, brown, long.

Area 10 (*continued*).

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Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Reubander No. 59	Zoutpansberg..	Nov., 1933 Feb., 1934	.34 .18	1.41 .62	.31 .30	3.30 3.61	.04 .04	.47 .51	13.9 12.7	23.1 31.8	8.30 8.08	Bush. Grass, green, and bush; mostly grass.
		May, 1934 Aug., 1934	.12 .11	.40 .62	.32 .28	1.85 .79	.07 .05	.57 .32	5.5 4.3	37.1 34.5	4.38 3.14	Grass. Grass, brown, and bush; mostly grass.
		Nov., 1934	.26	.88	.34	3.31	trace	1.11	18.0	28.5	7.21	Grass, green, and bush; mostly grass.
		Feb., 1935	.11	.28	.24	1.72	.05	.62	6.9	35.8	3.65	Grass, green.
		May, 1935	.17	.41	.26	2.53	.39	.09	8.7	31.8	5.47	Grass, green.
		Aug., 1935	.072	.55	.30	.81	.10	.35	4.4	39.0	2.94	Grass, brown.
Palnoryville No. 665	Zoutpansberg..	Dec., 1933 Mar., 1934	.32 .13	.67 .46	.31 .33	3.35 2.22	.11 .04	.70 .46	12.0 9.6	33.7 36.5	7.86 4.80	Grass, green, and bush; mostly grass. Grass, mainly green, and bush; mostly grass.
		June, 1934 Sept., 1934	.073 .05	.52 .48	.27 .27	.82 .24	.02 trace	.13 .04	5.0 4.0	39.2 43.1	2.90 1.96	Grass, mainly brown. Grass, brown, long.
		Dec., 1934	.13	.35	.29	1.43	.06	.64	7.1	37.8	3.44	Grass, green, long.
		Mar., 1935	.10	.36	.27	.45	.22	.51	6.1	33.2	3.66	Grass, mainly green, leafy.
		June, 1935	.13	.83	.34	1.05	.02	.29	8.2	32.6	4.16	Grass.
		Sept., 1935	.057	.74	.24	.64	.05	.28	4.3	34.5	3.45	Grass, brown, and bush.
Godeverwachting No. 111	Zoutpansberg..	Jan., 1934 April, 1934	.16 .12	1.01 .40	.44 .28	2.74 2.08	.09 .07	.43 .47	14.2 9.2	28.6 36.8	8.02 4.69	Grass, green, and bush. Grass, long.
		July, 1934 Oct., 1934	.088 .18	.55 1.11	.22 .31	.87 1.52	.04 .08	.20 .45	5.3 13.3	39.1 28.7	2.97 5.42	Grass, mainly brown. Grass, mainly green, leafy, and bush; mostly bush.
		Jan., 1935 April, 1935	.17 .12	.43 .65	.27 .38	2.08 1.43	.09 .05	.57 .69	11.0 9.1	35.2 29.5	4.53 4.44	Grass, green, long. Grass, mainly green, leafy.
		July, 1935 Oct., 1935	.069 .076	.43 1.18	.17 .21	.55 .47	.19 .03	.39 .15	4.9 6.3	40.7 35.0	2.50 8.45	Grass, mainly brown. Grass, brown, and bush.
Municipal Lands Louis Trichardt	Town Zoutpansberg..	Nov., 1933 Feb., 1934	.35 .23	.44 .25	.22 1.6	2.87 1.99	.26 .23	.62 .95	14.5 9.8	27.2 37.0	6.30 5.07	Grass, mainly green. Grass, mainly green.
		May, 1934 Aug., 1934	.14 .15	.35 .33	.20 1.13	1.67 1.50	.30 .01	1.24 1.06	6.7 3.2	34.0 37.6	4.48 2.19	Grass, mainly green. Grass, brown.
		Dec., 1934	.26	.35	.15	2.46	.33	1.32	13.8	31.3	6.50	Grass, green, leafy.
		Feb., 1935	.31	.36	.14	2.12	.33	.77	9.4	33.0	6.24	Grass, green, leafy.
		May, 1935 Aug., 1935	.12 .13	.22 .26	.11 .10	.72 .97	.03 .03	.31 .29	3.4 2.8	38.0 41.9	2.12 2.48	Grass, mainly brown. Grass, brown.

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Garth No. 460 . . .	Zoutpansberg..	Dec., 1933	.18	.34	.25	.3·11	.51	1·73	9·8	27·9	7·53	Grass, green.
		Mar., 1934	.13	.34	.24	1·62	.24	.67	9·2	35·9	4·02	Grass, mainly green.
		June, 1934	.072	.42	.28	1·23	.26	.65	5·7	34·8	3·58	Grass.
		Sept., 1934	.06	.27	.23	.22	.14	.34	5·9	35·7	2·28	Grass, brown.
		Dec., 1934	.12	.98	.41	1·67	.09	.16	15·9	26·0	6·87	Bush.
		Mar., 1935	.14	.33	.31	1·33	.44	.04	11·4	29·2	5·08	Grass, green, short.
		June, 1935	.17	.37	.21	1·18	.22	.39	11·3	28·2	3·63	Grass.
		Sept., 1935	.10	.86	.28	1·23	.34	.30	7·7	35·6	4·83	Grass, short, and bush.
Outlook No. 341.	Zoutpansberg..	Jan., 1934	.22	.26	.13	2·54	.15	.71	11·0	40·2	5·26	Grass, green.
		April, 1934	.36	.24	.13	1·59	.06	.36	6·2	36·3	3·36	Grass, mainly green, short.
		July, 1934	.058	.27	.12	.40	.03	.16	3·4	36·9	1·60	Grass, mainly brown.
		Oct., 1934	.21	.30	.18	1·47	.14	.44	8·8	37·1	3·60	Grass, leafy.
		Jan., 1935	.13	.21	.19	1·16	.07	.73	6·7	36·9	2·63	Grass, green, leafy.
		April, 1935	.28	.31	.14	1·60	.11	.52	9·9	30·9	3·93	Grass, mainly green, leafy.
		July, 1935	.10	.32	.13	.68	.06	.26	3·7	43·8	2·07	Grass, mainly brown.
		Oct., 1935	.05	.18	.08	.32	.03	.09	4·0	38·5	1·31	Grass, brown, leafy.
Verzameling van Waters, No. 119	Zoutpansberg..	Nov., 1933	.25	.31	.28	1·96	.34	.50	11·0	33·8	4·78	Grass, green.
		Feb., 1934	.21	.24	.19	1·45	.04	.34	4·4	40·4	3·07	Grass.
		May, 1934	.32	.27	.16	1·07	.04	.23	4·9	39·7	3·42	Grass.
		Aug., 1934	.18	.23	.20	.51	.14	.15	2·6	42·6	2·16	Grass, brown, long.
		Feb., 1935	.20	.23	.13	1·39	.05	.44	4·4	41·9	3·04	Grass, green, long.
		May, 1935	.15	.27	.16	.78	.04	.18	3·1	38·0	2·16	Grass, long.
		Aug., 1935	.15	.23	.14	.59	.05	.20	2·1	41·7	1·83	Grass, brown, long.
Lagegevonden No. 74	Zoutpansberg..	Dec., 1933	.14	.24	.15	1·72	.19	.38	6·2	39·5	3·62	Grass, green.
		Mar., 1934	.13	.25	.18	1·25	.04	.28	4·4	38·4	2·81	Grass, mainly green.
		June, 1934	.24	.31	.23	.86	.15	.28	3·8	39·2	2·95	Grass, long.
		Sept., 1934	.15	.27	.23	.41	.19	.17	2·7	43·2	1·89	Grass, brown, long.
		Mar., 1935	.11	.75	.24	1·83	.08	.47	5·3	39·3	4·68	Grass, long, and bush ; mostly grass.
		June, 1935	.088	.22	.11	.40	trace	.15	2·3	43·9	1·42	Grass, brown, long.
		Sept., 1935	.10	.25	.14	.66	.06	.26	2·0	41·6	2·55	Grass, brown, long.
Weltevreden . . . . .	Zoutpansberg..	Jan., 1934	.28	.51	.28	3·15	.15	.67	7·1	39·2	6·98	Grass and bush.
		April, 1934	.26	.26	.19	1·16	.06	.39	4·1	39·1	3·13	Grass, long.
		July, 1934	.23	.53	.16	.86	.12	.31	5·9	34·6	3·31	Grass, mainly brown, long, and bush.
		Oct., 1934	.15	.25	.11	.58	.03	.18	4·8	38·2	1·90	Grass, mainly brown, long.
		April, 1935	.044	.26	.13	.50	.07	.22	5·1	37·3	2·73	Grass, mainly brown, long.
		July, 1935	.16	.32	.11	.49	.04	.08	3·0	39·7	2·40	Grass, brown, long.
		Oct., 1935	.11	.32	.11	.46	.04	.06	2·9	44·1	3·37	Grass, brown, long.

AREA 10 (*continued*).

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Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
Rondebosch No. 30	Zoutpansberg .	Nov., 1933 Mar., 1934 May, 1934	.18 .12 .081	.31 .14 .51	.17 1.09 .63	.46 .07 .06	.44 .22 .10	.9.8 6.2 5.6	36.1 34.3 33.0	4.27 2.83 3.66	Grass and bush; mostly grass, mainly green. Grass, mainly brown, and bush; mostly grass.	
		Oct., 1934 Nov., 1934 Feb., 1935 May, 1935 Aug., 1935	.15 .093 .17 .085 .046	.46 .19 .28 .26 .33	.27 1.31 2.0 .19 .20	.07 .65 .69 .75 .45	.26 .29 .14 .11 .08	.8.9 5.1 36.7 7.4 .17	31.8 36.7 2.06 29.9 36.7	3.71 2.06 4.00 2.78 2.09	Grass, mainly green, and bush. Grass, mainly green. Grass, green, short. Grass, mainly brown, long. Grass, brown, long.	
Nooitgedacht No. 5	Zoutpansberg .	Jan., 1934 Mar., 1934 June, 1934	.21 .16 .32	.26 1.13 .18	.20 .12 .81	.64 .12 .07	.36 .12 .19	.49 5.1 5.1	8.7 37.3 37.9	4.05 3.26 3.03	Grass, mainly green. Grass, mainly brown, and bush; mostly grass.	
		Oct., 1934 Jan., 1935 Mar., 1935	.097 .16 .12	.30 .65 .58	.14 .34 .24	.57 2.11 1.32	.06 .56 .24	.15 7.8 .34	.39.9 11.7 8.8	2.27 6.20 4.12	Grass. Grass, green, short, and bush. Grass, mainly green, leafy, and bush; mostly grass, long. Grass, brown, long.	
		June, 1935 Sept., 1935	.087 .064	.23 .20	.16 .12	.73 .50	.06 .09	.20 .31	.3.7 2.4	1.97 43.4	2.12	
Kutambo Location	Zoutpansberg .	Feb., 1934 April, 1934 July, 1934 Nov., 1934 Jan., 1935 April, 1935 July, 1935 Oct., 1935	.093 .13 .071 .95 .14 .14 .13 .085 .071 .073	.43 .44 .23 .39 .71 .49 .36 .33 .37 .21	.25 1.90 .04 .04 .36 .36 2.38 .33 .18	.67 1.90 .25 .25 .63 .02 2.38 .38 .09	.47 .49 .35 .35 .11 .38 .47 .27 .09	.57 2.8 8.5 8.5 18.8 16.3 27.4 27.4 .07	8.3 9.4 33.2 29.3 30.6 6.11 7.10 7.10	33.4 33.2 4.74 5.10 5.39 6.11 7.10 3.27	4.33 Grass. Grass, brown, and bush. Bush. Grass, green, leafy. Grass, mainly green, and bush; mostly grass, long. Grass, mainly brown.	
Vergenoeg . . . . .	Zoutpansberg .	Dec., 1933 Mar., 1934 Jun., 1934	.25 .26 .17	.41 .36 .64	.27 1.34 1.27	.05 .30 .09	.07 .30 .09	.42 9.2 .24	13.0 33.6 10.9	5.16 4.25 4.06	Grass, mainly green, and bush. Grass and bush; mostly grass. Grass, mainly green, short, and bush; mostly grass.	
Goedgevonden No. 214	Zoutpansberg .	Jan., 1934 April, 1934 July, 1934 Mar., 1935	.13 .10 .049 .09	.30 .27 .21 .24	.12 .20 .09 .07	.42 1.42 .82 .18	.05 .15 .02 .03	.33 6.5 0.3 .03	6.8 6.5 5.1 4.0	3.21 2.37 1.23 3.63	Grass. Grass, long. Grass, brown. Grass.	

## FEEDING VALUE OF PASTURES IN SOUTH AFRICA.

AREA 10 (*continued*).

Farm.	District.	Date.	P.	Ca.	Mg.	K.	Na.	Cl.	Crude Protein.	Crude Fibre.	Soluble Ash.	Description of Sample.
M'Pefus Location. Zoutpansberg..		Feb., 1934	.12	.88	.40	1.34	.28	.40	12.0	32.3	5.80	Grass, mainly green, and bush; mostly grass.
		May, 1934	.076	.50	.37	.79	.16	.40	7.1	35.3	3.06	Grass and bush; mostly grass.
		Aug., 1934	.085	.98	.44	.77	.20	.32	7.4	31.3	4.40	Grass, brown, and bush; mostly bush.
		April, 1935	.066	.55	.28	1.15	.19	.34	8.8	31.7	5.20	Grass.
Woodlands 1019	Zoutpansberg..	Dec., 1933	.14	1.29	.31	2.31	.05	.41	12.0	29.7	7.72	Grass, mainly green, and bush.
		Mar., 1934	.11	.99	.32	1.81	.04	.38	11.3	34.4	5.94	Grass and bush.
		June, 1934	.064	.49	.15	.95	.07	.33	4.8	36.7	3.03	Grass, brown, and bush; mostly grass.
		Sept., 1934	.063	.44	.11	.85	.04	.16	4.7	39.6	2.21	Grass, brown, and bush; mostly grass.
Durham No. 922.	Zoutpansberg..	Dec., 1934	.078	.91	.24	1.12	.08	.23	10.3	38.3	4.64	Grass, mainly green, and bush; mostly bush.
		Oct., 1935	.078	1.20	.48	1.50	.06	.14	11.8	23.3	7.62	Bush.
		Jan., 1934	.13	.83	.15	1.79	.05	.23	8.6	34.5	4.98	Grass, mainly green, and bush; mostly grass.
		April, 1934	.088	.97	.18	1.26	.04	.23	6.2	34.0	4.30	Grass, mainly brown, and bush.
Mattry No. 686.	Zoutpansberg..	July, 1934	.084	.30	.13	1.02	.03	.21	5.3	35.8	2.32	Grass, brown, and bush; mostly grass.
		Oct., 1934	.039	.13	.08	.36	trace	.09	2.7	39.2	1.12	Grass, brown, long.
		Jan., 1935	.039	.26	.09	.29	.01	.19	3.2	39.8	1.44	Grass, brown, and bush; mostly grass.
		Sept., 1935	.072	.78	.13	.46	—	.12	5.4	32.9	3.19	Grass, brown, and bush.
Goosen No. 1071 (Messina)	Zoutpansberg..	Jan., 1934	.11	.25	.14	1.59	.02	.37	9.1	39.1	3.25	Grass.
		April, 1934	.087	.41	.14	1.22	.04	.30	5.8	33.0	2.77	Grass and bush; mostly grass.
		July* 1934	.11	.40	.13	.99	.01	.33	4.4	32.6	2.63	Grass, brown, and bush; mostly grass.
		Oct., 1934	.071	.38	.09	.78	.03	.18	4.0	34.8	2.20	Grass, brown, and bush; mostly grass.
		Jan., 1935	.08	.43	.13	1.01	.06	.17	7.1	35.1	2.72	Grass, brown, and bush; mostly grass.
		April, 1935	.11	.48	.16	1.19	.02	.27	7.9	28.9	3.12	Grass and bush; mostly grass.
		Oct., 1935	.057	.18	.08	.55	.02	.05	3.9	41.5	3.17	Grass, brown, long, and bush; mostly grass.
		Nov., 1935	.18	1.59	.31	2.07	.11	.28	17.2	21.8	7.96	Grass, brown, and bush.