

# ANALYSES OF SOILS.

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THE following tabular statement gives the results of analyses of those soils on which co-operative experiments have been conducted by the Department's officers during the year ending 31st December, 1912. It will be noted that, with the exception of the pakihī soils, a large number of the soils are well supplied with plant-food, and therefore that they might not be expected to so readily respond to fertilizers as soils which are much poorer in plant-food:—

## CHEMICAL ANALYSES.

Locality.	Description.	Volatile Matter.		Total Nitrogen.	Citric-acid Extract in Twenty Hours. (Dyer's Method, Hall's Modification.)			Reaction of Soil to Litmus.	Hydrochloric-acid Extract.			
		At 100° C.	On Ignition.		Potash (K <sub>2</sub> O).	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> ).	Colour of Extract on Ignition.		Lime (CaO).	Magnesia (MgO).	Potash (K <sub>2</sub> O).	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> ).
Gore, Southland	Stiff fine sandy clay	3.56	9.91	0.25	0.018	0.010	Brownish grey	Acid	0.27	0.63	0.20	0.13
Geraldine, Canterbury	Clay loam (a)	2.78	8.58	0.27	0.036	0.034	Greyish brown	"	0.61	0.76	0.30	0.25
Pleasant Point, Canterbury	Fine sandy clay soil (b)	1.80	5.85	0.21	0.020	0.019	Brownish yellow	"	0.60	0.21	0.18	0.12
Lovell's Flat, Otago	Rather stiff grey clay loam (b)	2.26	5.29	0.16	0.011	0.008	Brown	"	0.45	0.33	0.25	0.08
Stirling, Otago	Friable light-grey fine sandy loam (b)	0.74	2.82	0.10	0.015	0.072	Dark brown	Faintly acid	0.74	0.80	0.10	0.19
Hampden, Otago	Fine sandy loam (b)	2.74	7.36	0.23	0.017	0.016	Greyish brown	Acid	0.36	0.32	0.31	0.13
Waitaki, Otago	"	2.44	6.52	0.24	0.018	0.034	Light brown	"	0.48	0.34	0.29	0.20
Cromwell, Otago	" (mica silt) (b)	0.64	0.34	0.08	0.011	0.069	Light grey	Faintly acid	0.41	1.01	0.16	0.24
Coal Creek, Otago	" (b)	0.18	7.21	0.15	0.008	0.012	Reddish brown	Acid	0.13	0.47	0.17	0.09
"	"	2.36	7.85	0.27	0.015	0.036	Light brown	"	0.29	0.88	0.26	0.15
"	Clay loam (b)	3.56	11.84	0.35	0.030	0.017	Grey	"	0.36	0.57	0.22	0.17
Te Moana, Canterbury	Sandy loam (b)	2.14	6.19	0.15	0.015	0.017	Light brown	Faintly acid	0.39	0.29	0.20	0.14
Timaru, Canterbury	Clay-loam (b)	1.32	5.11	0.19	0.015	0.052	Greyish brown	Neutral	0.59	0.92	0.17	0.20
Otekaieke, Otago	Light-greyish-brown clay loam (b)	1.74	6.23	0.27	0.025	0.052	Light-brownish grey	Faintly alkaline	0.94	0.86	0.25	0.30