

“An experiment at Mamaku State Farm confirmed the superiority of chlorate compared with dichromate, thiocyanate, and bisulphite weedkillers. Another Mamaku experiment is designed to determine the effect of treatments on individual plants at various times throughout the year and the toxic dose per plant. Progress reports indicate that the amount will be about 3 grams or 4 grams. Plants in Ruakura pasture have been completely killed by 5-gram doses.

“Experiments in the Ruakura nursery indicate that injections of chlorate into the soil or applications on the soil surrounding the plants are not as effective as those applied to the foliage in the usual way, that dilution of the spray has little effect and that the seed from flowering plants sprayed with 2½ per cent. and 5 per cent. sodium chlorate has a germination of 10 per cent. to 20 per cent., compared with 50 per cent. to 80 per cent. in unsprayed seedheads.”

SAMPLES RECEIVED FOR ANALYSIS, 1938–39.

Wellington Laboratory—

Pastures for trace elements	..	448
Animal organs for trace elements	137	
Pastures for mineral analysis, &c.	281	
Toxicological specimens	..	248
Milks and urines (arsenic investigation)	..	121
Stock-foods	..	32
Pig-fats	..	56
Butters	..	141
Fertilizers	..	53
Soils	..	491
Limestones	..	150
Field crops	..	49
Sugar-beets	..	111
Waters	..	84
Stock-remedies	..	10
Seaweeds	..	13
Canterbury sheep survey pasture extracts	..	60

Thyroids	..	..	8
Dips	..	..	5
Limonites	..	..	2
Miscellaneous	..	..	109
			— 2,609

Ruakura Laboratory—

Pastures—			
Fields Division plots	..	404	
Facial eczema—general	..	301	
Facial eczema—rate of growth	102		
Soils—			
Facial eczema—moisture	..	202	
Facial eczema—nitrate	..	162	
Ragwort	..	14	
Viscera	..	22	
Curds	..	15	
			— 1,222
Total	..	..	3,831