

Table 7.—Summary of Differences of Treatments, &c.—continued.

Treatments compared. (For explanation of abbreviations see footnote.)*	Differences in Tons per Acre in each Experiment. (Number as in text.)					
	1.	2.	3.	4.	5.	6.†
B. EFFECT OF POTASH.						
<i>B1. Effect of First Hundredweight of Sulphate of Potash—</i>						
Increase of P_2K_1 over P_0 —						
Table .. .. .	..	..	..	0.2	0.0	..
Seed .. .. .	..	..	..	0.2	0.3	..
Total .. .. .	..	..	..	0.2	0.5	..
Increase of $P_2N_1K_1$ over P_0N_1 —						
Table	0.0	0.2	0.1	..	..	0.1
Seed	0.1	0.1	-0.1	..	..	-0.1
Total	0.1	0.4	0.0	..	..	0.0
<i>B2. Effect of Second Hundredweight of Sulphate of Potash—</i>						
Increase of $P_2N_1K_2$ over $P_0N_1K_1$ —						
Table	-0.2	0.0	0.6	-0.1	0.4	..
Seed	0.0	-0.1	-0.1	0.3	0.0	..
Total	-0.2	-0.1	0.5	0.0	0.3	..
Increase of $P_2N_2K_2$ over $P_0N_2K_1$ —						
Table	0.0	0.1	0.1	-0.1	0.0	..
Seed	0.1	0.0	0.0	-0.1	-0.2	..
Total	0.1	-0.2	0.1	-0.6	-0.4	..

Figures preceded by a minus sign (-) signify decreases. Increases printed in heavy type are statistically significant.

* The symbols P, K, and N refer to super, sulphate of potash, and sulphate of ammonia respectively. The figure given after each symbol represents the quantity in hundredweights of the fertilizer applied, thus $P_2N_1K_2$ represents super 3 cwt. plus sulphate of ammonia 1 cwt. plus sulphate of potash 2 cwt.

† In this experiment 5 cwt. super was used.

‡ Increases of super plus sulphate of ammonia 2 cwt. over super plus sulphate of ammonia 1 cwt.

Comments on Table 7.

Effect of Nitrogen.—In two experiments, Nos. 1 and 6, 1 cwt. of sulphate of ammonia added to super has had the effect of increasing yield significantly although in the first mentioned this only occurred in seed and total potatoes.

In experiment 4 sulphate of ammonia at 1 cwt. added to super plus potash has increased the yields of table and total potatoes significantly.

The yields of seed and total show significant increases by the addition of a further 1 cwt. sulphate of ammonia to super plus sulphate of ammonia 1 cwt. plus sulphate of potash 1 cwt. in Experiment 5, although in the same experiment 1 cwt. of sulphate of ammonia added to super plus potash had little effect.

Effect of Potash.—1 cwt. sulphate of potash added to super plus 1 cwt. sulphate of ammonia gave a significant increase in total potatoes in the case of Experiment 2. The addition of a further 1 cwt. sulphate of potash to super plus 1 cwt. sulphate of ammonia plus 1 cwt. sulphate of potash gave a significant increase in table and total potatoes in Experiment No. 3 and in table potatoes in Experiment 5.

SUMMARY.

The results of six experiments on the manuring of potatoes conducted in the South Island during the season 1932-33 are given.

In one experiment in which super at 3 cwt. per acre was compared with no manure, the former caused a significant increase in yield of 1.4 tons table, 0.6 tons seed, and 2.0 tons total potatoes.