

Table 5.—Effect of Application of Manures in 1924 on those of 1923, compared with 1923 Application (1924 Controls) and with one another.

(All plots falling on the controls of the 1923 experiment are eliminated, and in the case of super and control, Plots 2, 3, 4, and 5 are compared with Plots 7, 8, 9, and 10 respectively, &c.)

Treatment.	Number of Plots compared.	Yield of Hay per Acre.	Difference in Hay per Acre.	Value of Difference at £5 per Ton.	Cost of Manure per Acre at Country Station.	Net Profit per Acre.
		Tons.	Tons.	£ s. d.	£ s. d.	£ s. d.
Super	64	2·890	0·404	2 0 5	0 14 6	1 5 11
Control	64	2·486	..	..	..	..
Basic super	64	2·866	0·380	1 18 0	0 13 6	1 4 6
Basic super and blood..	64	2·788	0·185	0 18 6	1 0 0	Loss of 1s. 6d.
Control	64	2·603	..	..	..	..
Super and blood	64	2·950	0·347	1 14 8	1 1 0	0 13 8
Basic super	64	2·866	0·078	0 7 10*	..	..
Basic super and blood..	64	2·788	..	..	..	..
Super and blood	48	2·997	0·148	0 14 10	..	..
Super	48	2·849	..	..	..	..

* Here, as in Table 3, the addition of blood to basic super has had the effect of reducing the yield of the plots with that mixture to below that of basic super alone.

These results show that the second dressing of 1924 was paid for in the single hay crop, except in the case of basic super and blood. Here again the effect of the blood in combination with basic super seems to be a depressing one. Blood in combination with super gave a slight increase over super alone.

SUMMARY.

W. G. Macartney's Experiment.

- (1.) In 1923—a season of extremely light rainfall—manurial dressings of 2 cwt. per acre did not pay in the hay crop taken three months after the application of the manures.
- (2.) Eleven months after application a line of demarcation between the treated and untreated areas could be distinctly seen, but this difference was not apparent when the second hay crop was taken.
- (3.) Weighings taken fifteen months after treatment showed a significant increase in the case of every manure.

General Conclusions applying to 1924 Experiments.

- (1.) In every case, with one exception (basic super and blood, Table 5), the actual cost of manures at country stations had been more than paid for by the increase in one crop of hay.
- (2.) If the growth of grass represented by one crop of hay is regarded as half the total growth for the year the net profit resulting from the application of the fertilizers is greatly increased above that shown in the tables.