

EXPERIMENTS IN 1929.

During 1929 three manurial experiments were carried out with early potatoes at Pukekohe. Experiments were laid down on the farms of Messrs. E. J. Campbell and G. T. Nicholson to determine the value of nitrogen and potash in addition to the basal phosphatic dressing of 15 cwt. super per acre. Another experiment was laid down on Mr. P. A. Miller's farm to determine the effect of different degrees of concentration of manure in proximity to the plant, and whether delaying a portion of the super dressing was beneficial. To ensure accuracy each treatment was replicated ten to sixteen times.

TRIAL ON E. J. CAMPBELL'S FARM.

The experimental area on this farm was planted on 30th May, and the crop was dug and weighed on 21st October. The manurial treatments per acre were as follows:—

- (1) Superphosphate 15 cwt.
- (2) Superphosphate 15 cwt., sulphate of potash 2 cwt., sulphate of ammonia 2 cwt.
- (3) Superphosphate 15 cwt., sulphate of potash 2 cwt., sulphate of ammonia 4 cwt.
- (4) Superphosphate 15 cwt., sulphate of potash 2 cwt., sulphate of ammonia 6 cwt.
- (5) Superphosphate 15 cwt., sulphate of potash 4 cwt., sulphate of ammonia 4 cwt.

Before digging the rows manured most heavily with sulphate of ammonia could be picked out quite easily, the tops being heavier and of a healthy green colour. The yields from the different treatments are given in Table 2, from which it can be seen that the addition of sulphate of ammonia to the basal phosphatic dressing has materially increased the yield. Comparing the yields from treatments 3 and 5 it is evident that increasing the sulphate of potash to 4 cwt. per acre has



FIG. 2. WEIGHING YIELDS FROM EXPERIMENTAL AREA ON MR. CAMPBELL'S FARM, 21/10/29.