

MANGEL TRIALS AT MOUMAHAKI.

DURING the season 1915-16 a number of varieties of mangels were under trial at the Moumahaki Experimental Farm. The variety trial plots were heavily manured, but the aspect was not all that could be desired. Pine-trees excluded the sun considerably, and no doubt the roots of the trees extracted considerable nutriment from the soil. Following was the manurial treatment, all quantities being per acre: Farmyard manure, 10 tons; Ephos phosphate, 4 cwt.; sulphate of potash, $\frac{1}{2}$ cwt.; sulphate of ammonia, $\frac{1}{4}$ cwt. The seed was sown on 12th October, 1915, and the crop weights, taken on 24th May, 1916, are as follows:—

	Tons per Acre.
1. Wiboltt's Danish Yellow Long-ovoid Mammoth ..	63·14
2. Wiboltt's Danish Yellow Short-ovoid Giant ..	51·14
3. Kelway's Best of All	58·28
4. Kelway's Exhibition Golden Tankard	43·71
5. Kelway's Langport Yellow Globe	67·14
6. Kelway's Crimson King	46·00
7. Cooper's Mangold Sugar-beet	31·14
8. Cooper's Mammoth Long Red	71·14
9. Cooper's Jersey Queen	48·86
10. Cooper's Yellow Globe	44·28
11. Moumahaki seed—Long Red	72·85
12. Moumahaki seed—Sugar Mangel*	48·57
13. Sutton's Golden Tankard	37·14
14. Sutton's Prizewinner Yellow Globe	65·71
15. Sutton's Up-to-Date	42·00
16. Sutton's Jersey Queen	50·57
17. Kelway's Prizewinner	43·42
18. Kelway's Long Red	62·57
19. Sutton's Sugar	46·28
20. Webb's New Lion	57·14

* Grown from seed raised from selection of Sutton's Long Red and Sugar Mangel.

The main field crop was confined to a few varieties, the manurial treatment being also different to the variety trial plots. The main crop followed grass, the land being skim-ploughed during the early part of June, 1915, and left without further treatment until September. It was then ploughed deeply, worked, and dressed with refuse salt, 5 cwt. per acre being applied a month prior to sowing the seed, which was sown on 12th October at the rate of 6 lb. per acre. The plants were singled during the latter part of November and early December; the crop was weighed in the first week in July.

Manurial trials were carried out as follows, the variety in each case being Sutton's Mammoth Long Red:—

I. Superphosphate 4 cwt., sulphate of potash $\frac{1}{2}$ cwt., sulphate of ammonia $\frac{1}{4}$ cwt., all per acre. Weight of crop (roots only), 72·85 tons per acre.