

MOSGIEL DISTRICT.

Manurial and Variety Tests, conducted by Charles Forsyth, Table Hill, Mosgiel.

The land selected was a light loam with clay subsoil, and was situated sixteen miles from the sea-coast. It was in English grass in 1908; in turnips 1909; in oats 1910; in turnips 1911. For this experiment it was ploughed 6 in. deep on 1st June, 1911; double-disked, tine-harrowed, and double-disked in October, 1911; double-disked on 26th November, 1911; disked and tine-harrowed on 5th January, 1912. In the manurial test the area was divided into seven manurial plots and one unmanured as a test plot. Plots one-tenth acre each. The fertilizers applied were according to a scheme designed by the Chief Agricultural Chemist. The variety of seed sown was Fosterton Hybrid. In the variety test 2 cwt. Surprise Island guano and $\frac{3}{4}$ cwt. bonedust per acre were applied. The seeds and fertilizers were sown in raised drills on 9th January, 1912; drills 26 in. apart. The roots were pulled and weighed on 23rd July, 1912. Results:—

MANURIAL TEST.

| Plot. | Manures per Acre. | Cost per Acre. | Weight of Crop per Acre. | | Effect of Manuring. |
|-------|--|----------------|--------------------------|-------|---------------------|
| | | | Roots. | Tops. | |
| | | £ s. d. | Tons. | Tons. | Tons. |
| 1 | Superphosphate, 1½ cwt. .. | 0 7 2 | 25-63 | 6-00 | Gain, 22-36 |
| 2 | Superphosphate, 3 cwt. .. | 0 14 3 | 22-91 | 6-54 | „ 19-64 |
| 3 | Superphosphate, 2 cwt.; bone-dust, $\frac{3}{4}$ cwt. .. | 0 14 0 | 18-54 | 4-36 | „ 15-27 |
| 4 | No manure | | 3-27 | 5-45 | |
| 5 | Same as No. 3 mixture; sulphate of potash, 28 lb. .. | 0 17 9 | 26-18 | 4-36 | Gain, 22-91 |
| 6 | No. 5 mixture, 1½ cwt. . . . | 0 8 11 | 39-27 | 7-63 | „ 36-00 |
| 7 | Same as No. 6 mixture; salt, 14 lb. .. | 0 9 2 | 58-91 | 9-80 | „ 55-64 |
| 8 | Albatross guano, 2 cwt. .. | 0 10 0 | 56-73 | 10-91 | „ 53-46 |

VARIETY TEST.

| Plot. | Variety. | Crop per Acre. | |
|-------|--|----------------|-------|
| | | Roots. | Tops. |
| | | Tons. | Tons. |
| 1 | Yellow-fleshed— Garton's Green-top Scotch | 14-72 | 2-72 |
| 2 | „ Purple-top Scotch | 12-54 | 2-72 |
| 3 | „ Inche's Bronze-top | 14-18 | 3-27 |
| 4 | „ Old Meldrum | 14-72 | 3-81 |
| 5 | „ Stobo, Blue | 19-09 | 3-27 |
| 6 | Challenge—Waite's Eelipse | 16-36 | 3-81 |
| 7 | „ Dale's Hybrid | 20-18 | 3-81 |
| 8 | Sutton's All the Year Round | 14-18 | 2-72 |
| 9 | „ Centenary | 10-91 | 1-63 |
| 10 | „ Early Sheepfold | 8-72 | 1-09 |
| 11 | „ Favourite Purple-top | 18-00 | 3-27 |
| 12 | „ Perfection Green-top | 13-63 | 3-27 |
| 13 | „ Romney Marsh | 27-27 | 4-36 |
| 14 | Montgomery's Aberdeen Green-top Yellow | 18-54 | 3-81 |
| 15 | „ Aberdeen Purple-top Yellow | 25-63 | 4-36 |
| 16 | „ Fosterton Hybrid | 9-27 | 2-72 |
| 17 | „ Green-top Yellow Tankard | 22-91 | 4-36 |
| 18 | Nimmo and Blair's Challenger | 12-00 | 4-90 |
| | White-fleshed— | | |
| 19 | Garton's Hardy Green Globe | 19-09 | 3-27 |
| 20 | Sutton's Red Paragon | 13-63 | 3-29 |
| 21 | „ Early Six Weeks | 18-00 | 2-72 |
| 22 | „ Purple-top Mammoth | 30-00 | 4-36 |
| 23 | „ Pomeranian White Globe | 23-45 | 3-81 |
| 24 | „ Imperial Green Globe | 23-45 | 2-18 |
| 25 | Montgomery's White Stone | 24-00 | 3-27 |
| 26 | „ Devonshire Greystone | 23-45 | 3-27 |
| 27 | „ Lincolnshire Red Globe | 20-18 | 3-81 |