

Following are the results as regards the principal varieties tested :—

Variety.	Marketable Tubers. Tons per Acre.	Small Tubers. Tons per Acre.	Total Yield. Tons per Acre.
Gamekeeper ..	20·00	3·00	23·00
Maori Chief (ordinary seed) ..	15·25	1·75	17·00
Maori Chief (small seed) ..	9·75	1·50	11·25
Vitality ..	20·00	2·00	22·00
King Edward ..	7·50	2·00	9·50
Red Rock ..	8·25	1·75	10·00
Up-to-Date ..	8·50	1·00	9·50
Patea Gem ..	8·75	2·25	11·00
Commercial ..	11·75	1·25	13·00
Palmer's Prolific ..	11·50	1·00	12·50
Queen Mary ..	9·00	1·50	10·50
Skerry Blue ..	6·25	1·50	7·75
Star of New Zealand ..	10·25	1·25	11·50
Sir J. G. Wilson ..	12·50	6·75	19·25
Arran Chief ..	8·75	2·00	10·75

—*T. W. Lonsdale, Manager, Moumahaki Experimental Farm.*

RUAKURA.

The following is the Experimentalist's report on potato-variety tests at the Ruakura Farm of Instruction for the season 1915-16 :—

The potato crop was grown in No. 6 paddock. The previous year this paddock grew a crop of cereals which received $1\frac{1}{2}$ cwt. superphosphate and $1\frac{1}{2}$ cwt. bonedust per acre. After the cereals were harvested the land was ploughed and sown down with white mustard at the rate of 10 lb. per acre, intended for green-manuring. The mustard was ploughed in on 20th September, 1915, the land being again ploughed, disked, and harrowed on 1st November. It was then ridged and the manure sown between the ridges. The manure used was the following mixture per acre : 4 cwt. basic superphosphate, 3 cwt. bonedust, 1 cwt. Seychelles guano.

The sets, being previously sprouted in boxes, were then planted 14 in. apart in the drills on 12th November. On 13th December horse-hoeing was done between the rows to eradicate weeds, and hand-hoeing between the plants. The crop was again horse-hoed on 23rd December, and received the first spraying on the following days. The Bordeaux mixture used for the first spraying was as follows : 4 lb. copper sulphate, 5 lb. quicklime, 50 gallons water.

The crop was again horse-hoed on 28th December, and for the last time on 10th January, 1916, followed up by a second spraying on 11th, 12th, and 13th January. The mixture used for this spraying was slightly different, as ordinary washing-soda was substituted for the quicklime used in the mixture for the first sprayings. The spray consisted of 5 lb. copper sulphate, $7\frac{1}{2}$ lb. washing-soda, 50 gallons water. After being sprayed, the potatoes were ridged up.