

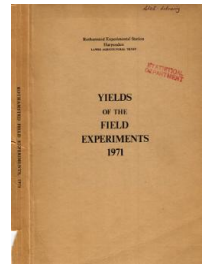
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1971

[Full Table of Content](#)



71/R/P/10 Spacing, Seed Size and Fertiliser - Potatoes

Rothamsted Research

Rothamsted Research (1972) *71/R/P/10 Spacing, Seed Size and Fertiliser - Potatoes* ; Yields Of The Field Experiments 1971, pp 324 - 327 - DOI: <https://doi.org/10.23637/ERADOC-1-97>

71/R/P/10

POTATOES

SPACING, SEED SIZE AND FERTILISER

Object: To study the effects of different spacings within and between rows, seed size and fertiliser rates on yield and size grades of potatoes - Whittlocks.

Design: 4 blocks of 8 plots, randomisation restricted. Plots split into 4.

Whole plot dimensions: N plots: 2.84 x 44.7. Sub plot area harvested: 0.00116.

W plots: 3.66 x 44.7. Sub plot area harvested: 0.00149.

Treatments:

Whole plots: All combinations of:-

1. Distance between rows: 71.1 cm (28 inches) (N), 91.4 cm (36 inches) (W).

2. Seed size: Small (S), large (L). All seed chitted.

3. Fertiliser rate: 1510 kg (F1), 2510 kg (F2) (13:13:20).

Sub plots:

4. Spacing of seed within the row: Seed 30.5 cm (12 inches) (3), 40.6 cm (16 inches) (4), 50.8 cm (20 inches) (5), 61.0 cm (24 inches) (6) apart within the row.

The seed was dusted with 4% 'Benlate' at approximately 3.57 kg per tonne, after being sorted into 2 seed sizes, 3.18 cm to 4.76 cm, and 4.76 cm to 5.72 cm, for the S and L treatments.

Basal applications: Manures: None. Weedkiller: Linuron at 0.84 kg in 427 l. Fungicide: Mancozeb at 1.35 kg in 438 l on 3 occasions. Insecticide: Demeton-s-methyl at 245 g applied with first mancozeb application.

Cultivations, etc.: Ploughed: 1 Oct, 1970. NPK applied to F1 plots: 6 Apr, 1971. NPK applied to F2 plots, all plots rotary cultivated: 20 Apr. Potatoes hand planted: 21 Apr. Weedkiller applied: 11 May. Fungicide plus insecticide applied: 24 June. Fungicide applied: 14 Aug, 16 Aug*. Sprayed with undiluted BOV at 168 l: 16 Sept. Lifted: 27 Sept. Variety: King Edward. Previous crops: Spring wheat 1969, fallow 1970.

* Because the spray on 14 Aug was followed by heavy rain.

71/R/P/10

NOTE: After harvest a sample from the produce of each plot was graded into 6 sizes.

Standard errors per plot. Total tubers, tonnes/hectare.

Whole plot: 3.58 or 7.1% (21 d.f.)

Sub plot: 2.81 or 5.6% (72 d.f.)

71/R/P/10

SUMMARY OF RESULTS

TOTAL TUBERS: TONNES/HECTARE

	S	L	F1	F2	3	4	5	6	Mean
	(±1.26)		(±1.26)		(1) and (2)				(±0.89)
N	51.0	54.4	51.2	54.2	54.6	52.2	51.6	52.4	52.7
W	46.5	49.4	46.3	49.6	49.5	48.6	46.9	46.8	48.0
			(±1.26)		(1) and (2)				(±0.89)
		S	47.6	49.9	50.9	48.7	47.5	47.8	48.8
		L	49.9	53.9	53.2	52.1	51.0	51.4	51.9
					(1) and (2)				(±0.89)
			F1		50.6	48.9	47.5	48.0	48.8
			F2		53.5	51.9	51.1	51.2	51.9
Mean (±0.50)					52.1	50.4	49.3	49.6	50.3

- (1) (±1.08) For use in vertical and diagonal comparisons only
 (2) (±0.70) For use in horizontal and interaction comparisons only

71/R/P/10

% WARE: 4.44 CM (1.75 INCH) RIDDLE

	S	L	F1	F2	3	4	5	6	Mean
N	69.0	69.0	67.5	70.5	62.2	67.0	71.1	75.5	69.0
W	75.5	74.4	74.8	75.1	70.5	73.4	75.2	80.7	75.0
		S	71.8	72.7	66.5	70.7	73.5	78.3	72.3
		L	70.5	72.9	66.3	69.7	72.9	78.0	71.7
			F1		64.0	70.0	72.1	78.4	71.1
			F2		68.8	70.4	74.3	77.9	72.8
Mean					66.4	70.2	73.2	78.1	72.0