

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 1974

[Full Table of Content](#)



74/R/P/3 Seed Sources - Potatoes

74/R/P/3 Seed Sources - Potatoes, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 345 - 346 - DOI: <https://doi.org/10.23637/ERADOC-1-119>

74/R/P/3

POTATOES

SEED SOURCES

Object: To study yields and tuber-borne diseases of potato stocks freed from these diseases by the use of stem cuttings and to compare these with local once-grown and bought-in certified stocks - Pastures.

Sponsors: G.A. Hide, F. Bell.

Design: 4 randomised blocks of 24 plots.

Whole plot dimensions: 1.42 x 9.52. Area harvested: 0.00135.

Treatments: Sources of King Edward seed tubers:

SEEDSRCE

Healthy (ex Scotland VTSC), two plots per block

Healthy

Healthier (once-grown at Rothamsted from ex-Scotland VTSC) two plots per block

Healthy +

Ten different certified stocks

Cert/1-Cert/10

Ten different once-grown stocks

OG/1-OG/10

Basal applications: Manures: (13:13:20) at 1510 kg. Weedkillers: Linuron at 1.2 kg plus paraquat at 0.42 kg ion in 450 l. Fungicide: Mancozeb at 1.3 kg in 450 l on two occasions. Insecticide: Demeton-s-methyl at 0.25 kg with mancozeb on the first occasion.

Cultivations, etc.: Ploughed: 23 Nov, 1973. Spring-tine cultivated: 17 Apr, 1974. NPK applied: 24 Apr. Spiked rotary cultivated, potatoes machine planted: 29 Apr. Weedkiller applied: 21 May. Grubbed: 19 June. Rotary ridged: 21 June. Fungicide applied: 12 July, 2 Aug. Insecticide applied: 12 July. Haulm mechanically destroyed: 10 Sept. Sprayed with undiluted BOV at 220 l: 16 Sept. Lifted: 24 Oct. Previous crops: Barley 1972, spring beans 1973.

NOTE: Counts were made of plant and stem numbers after burning off and before lifting. Tubers were graded into 6 sizes and assessments made of Oospora, Rhizoctonia, Helminthosporium and Phoma infection.

Standard error per plot.

Total tubers: tonnes/hectare: 3.54 or 6.3% (71 d.f.)

74/R/P/3

TABLES OF MEANS

SEEDSRCE	TOTAL TUBERS: TONNES/HECTARE	PERCENTAGE WARE 4.44 CM (1.75 INCH) RIDDLE
Healthy	60.3	84.8
Healthy +	56.2	79.5
Cert/1	61.6	80.7
Cert/2	58.2	82.5
Cert/3	53.3	83.2
Cert/4	54.4	81.5
Cert/5	56.9	87.3
Cert/6	59.0	84.0
Cert/7	61.8	85.8
Cert/8	61.2	87.2
Cert/9	49.1	83.7
Cert/10	57.4	85.5
OG/1	56.4	85.3
OG/2	54.8	82.8
OG/3	50.8	84.8
OG/4	54.0	81.9
OG/5	58.0	82.8
OG/6	54.8	86.5
OG/7	53.5	83.2
OG/8	55.7	83.7
OG/9	53.1	83.4
OG/10	58.5	85.1
Mean	56.5	83.7
Mean Cert/1-Cert/10	57.3	84.1
Mean OG/1-OG/10	55.0	84.0

STANDARD ERRORS OF DIFFERENCES. TOTAL TUBERS

SEEDSRCE	
Healthy v Healthy +	1.77
Healthy or Healthy + v any of remainder	2.17
Between any of remainder	2.50
Mean CERT/1-Cert/10 v mean OG/1-OG/10	0.79