

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 1995

[Full Table of Content](#)



95/R/P/4 Pathogenic Fungi - Potatoes

Rothamsted Research

Rothamsted Research (1996) *95/R/P/4 Pathogenic Fungi - Potatoes* ; Yields Of The Field Experiments 1995, pp 169 - 171 - DOI: <https://doi.org/10.23637/ERADOC-1-50>

95/R/P/4

POTATOES

PATHOGENIC FUNGI

Object: To study the effects of three potato pathogenic fungi, individually and in combination, on the growth and yield of two cultivars - Great Harpenden II.

Sponsor: P.J. Read.

Design: 3 randomised blocks of 2 x 8 plots.

Whole plot dimensions: 1.5 x 9.5.

Treatments: All combinations of:-

1. **CULTIVAR**

E	Estima
M	Maris Piper

2. **DISEASE** Inoculated with fungal cultures of:

H	None (healthy)
CC	<i>Colletotrichum coccodes</i>
VD	<i>Verticillium dahliae</i>
RS	<i>Rhizoctonia solani</i>
C+V	<i>C. coccodes</i> and <i>V. dahliae</i>
C+R	<i>C. coccodes</i> and <i>R. solani</i>
V+R	<i>V. dahliae</i> and <i>R. solani</i>
CVR	<i>C. coccodes</i> , <i>V. dahliae</i> and <i>R. solani</i>

Experimental diary:

07-Nov-94 : B : Ploughed.
29-Mar-95 : B : Heavy spring-tine cultivated.
13-Apr-95 : B : Heavy spring-tine cultivated.
18-Apr-95 : B : NPK as (12:20:20) at 1750 kg.
19-Apr-95 : B : Rotary harrowed.
20-Apr-95 : B : Ridged.
21-Apr-95 : B : Potatoes planted.
04-May-95 : B : Ridged.
23-May-95 : B : Campbell's Linuron 45% Flowable at 5.0 l with Gramoxone 100 at 3.0 l in 300 l.
20-Jun-95 : B : Ashlade Maneb Flowable at 2.75 l in 200 l.
30-Jun-95 : B : Ashlade Maneb Flowable at 2.75 l in 200 l.
19-Jul-95 : B : Ashlade Maneb Flowable at 2.75 l in 300 l.
01-Aug-95 : B : Ashlade Maneb Flowable at 2.75 l in 300 l.
14-Aug-95 : B : Super-Tin 4L at 560 ml with Intracrop BLA at 200 ml in 200 l.
30-Aug-95 : B : Super-Tin 4L at 560 ml with Intracrop BLA at 200 ml in 200 l.
13-Sep-95 : B : Super-Tin 4L at 560 ml with Harvest at 3.0 l in 400 l.
29-Sep-95 : B : Pulverised potato tops.
16-Oct-95 : B : Potatoes lifted.

95/R/P/4

Previous crops: S. wheat 1993, w. barley 1994.

NOTE: In June plant height and the number of stems per plant were recorded. At the beginning of July and August samples were taken and disease assessed on stem-bases, roots and tubers; total yields and size of tubers recorded. Disease was assessed and tubers were graded by size and weighed after harvest.

TOTAL TUBERS TONNES/HECTARE

***** Tables of means *****

CULTIVAR DISEASE	E	M	Mean
H	29.9	31.4	30.6
CC	27.8	27.6	27.7
VD	23.3	28.9	26.1
RS	21.0	27.5	24.2
C+V	27.2	27.5	27.3
C+R	25.9	25.0	25.5
V+R	22.7	24.7	23.7
CVR	25.1	27.3	26.2
Mean	25.4	27.5	26.4

*** Standard errors of differences of means ***

CULTIVAR	DISEASE	CULTIVAR DISEASE
1.06	2.11	2.99

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	3.66	13.9

95/R/P/4

PERCENTAGE WARE 5 CM RIDDLE

***** Tables of means *****

CULTIVAR DISEASE	E	M	Mean
H	59.7	47.9	53.8
CC	59.2	48.9	54.0
VD	53.2	48.3	50.7
RS	63.9	63.4	63.6
C+V	56.9	49.0	53.0
C+R	65.2	56.8	61.0
V+R	62.3	62.2	62.3
CVR	65.0	57.0	61.0
Mean	60.7	54.2	57.4

PLOT AREA HARVESTED 0.00086