

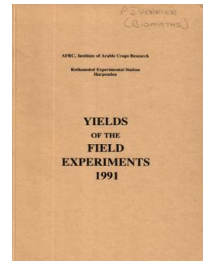
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91/R/P/1

POTATOES

CONTROL OF STORAGE DISEASES

Object: To study the effects of applying fungicides to seed tubers, harvest dates and post-harvest treatments on tuber diseases - Great Harpenden I.

Sponsors: S.M. Hall, G.A. Hide.

Design: 3 randomised blocks of 3 whole plots split into 9 sub plots.

Whole plot dimensions: 16.5 x 11.4.

Treatments: All combinations of:-

Whole plots

1. **HARVDATE** Dates of harvest:

H1	28 Aug, 1991
H2	18 Sept
H3	9 Oct

Sub plots

2. **FUNGRATE** Concentration of a mixture of thiabendazole (30%) and imazalil (10%) as a pre-planting dip:

0	None
F1	0.27% active ingredient of mixture
F2	0.07% active ingredient of mixture

NOTE: **HARVDATE** H1 and H2 haulm was pulverised 16 days before lifting and **HARVDATE** H3 was pulverised 14 days before lifting.

Basal applications: Manures: (0:20:32) at 980 kg. (12:20:20) at 1530 kg. Weedkillers: Linuron at 1.6 kg with paraquat at 0.60 kg ion in 200 l. Fungicides: Maneb at 0.96 kg and zinc oxide at 22 g in 200 l on three occasions, the first and third occasion with a wetting agent, 'Bond' at 0.2 l, and the second with the pirimicarb. Mancozeb at 1.4 kg with a wetting agent, 'Bond' at 0.2 l, in 200 l. Fentin hydroxide at 0.27 kg with a wetting agent, 'Nu Film P' at 0.18 l, in 200 l. Insecticide: Pirimicarb at 0.14 kg. Irrigation: 19 mm.

Variety: King Edward.

Cultivations, etc.:- PK applied: 4 Dec, 1990. Ploughed: 11 Dec. NPK applied: 11 Apr, 1991. Rotary harrowed, ridged: 15 Apr. Hand planted, split back: 16 Apr. Rotary ridged: 9 May. Weedkillers applied: 21 May. First maneb, zinc oxide and wetting agent applied: 1 July. Maneb, zinc oxide and pirimicarb applied: 10 July. Second maneb, zinc oxide and wetting agent applied: 19 July. Mancozeb with wetting agent applied: 1 Aug. Fentin hydroxide with wetting agent applied: 12 Aug. Irrigation applied: 14 Aug.

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NOTES: (1) Tuber diseases were assessed after harvest and in storage.
(2) Yields were not taken on HARVDATE H1.

TOTAL TUBERS TONNES/HECTARE

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

FUNGRATE HARVDATE	O	F1	F2	Mean
H2	44.0	45.3	46.7	45.4
H3	48.7	47.4	47.3	47.8
Mean	46.4	46.4	47.0	46.6

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

FUNGRATE	HARVDATE*
1.77	FUNGRATE 2.50

* Within the same level of HARVDATE only

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP.SP	44	5.31	11.4

PERCENTAGE WARE 4.44 CM (1.75 INCH) RIDDLE

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

FUNGRATE HARVDATE	O	F1	F2	Mean
H2	64.0	67.8	65.4	65.7
H3	68.6	70.8	61.7	67.0
Mean	66.3	69.3	63.6	66.4

SUB PLOT AREA HARVESTED 0.00171