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Yields of the Field Experiments 1967

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67/W/WCE/C/25 Irrigation and Eelworm - Potatoes

Rothamsted Research

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67/C/25.1

IRRIGATION AND EELWORM

(WCE)

Butt Close Woburn, the second year - potatoes

Effects on yield and cyst-nematode of soil fumigant and irrigation and of sequences of resistant and susceptible varieties of potatoes.

For details of treatments, etc. and for the previous years' results see 'Results' 66/C/32. Irrigation and fumigant treatments are cumulative.

Area of each plot: 0.0114. Area harvested: 0.0068.

Irrigation (C) 1967: (inches water)

Series I		Series IV	
June 13	1.00	June 16	1.00
June 21	1.00	June 22	1.00
July 5	0.50	July 6	0.50
July 11	0.75	July 12	0.75
July 18	0.50	July 19	0.50
July 20	0.25	July 21	0.25
August 8	0.25	August 11	0.25
<hr/>		<hr/>	
Total	4.25		4.25

Basal applications: 9 cwt (13:13:20). Weedkiller: Linuron at 0.25 lb plus paraquat at 0.5 lb ion in 50 gals. Fungicide: Mancozeb at 1.2 lb in 30 gals.

Cultivations, etc.: Ground chalk applied at 20 cwt: Oct 29, 1966. Deep-tine cultivated twice: Oct 31, Nov 4. Fumigant injected (Series I): Nov 21 - 22, (Series IV): Nov 22, Dec 5. Deep-tine cultivated: Mar 6, 1967. Fertilisers applied: Mar 20. Rotary cultivated, potatoes planted: Mar 29 - 30. Weedkiller applied: May 3. Rotary ridged: June 9. Fungicide applied: June 30, July 26. Sprayed with undiluted BOV at 15 gals: Aug 21. Lifted: Sept 14.

Note: Soil samples were taken from each plot after fumigation and before cropping. Cyst and egg counts were made, and soil used for root invasion tests.

67/C/25.2

Standard errors per plot. Total tubers:

Series I

Strip: 1.024 or 15.1% (6 d.f.)
1/2 plots: 1.136 or 16.8% (8 d.f.)
1/4 plots: 0.969 or 14.3% (16 d.f.)

Series IV

Strip: 2.568 or 22.6% (6 d.f.)
1/2 plots: 2.270 or 20.0% (8 d.f.)
1/4 plots: 2.282 or 20.1% (16 d.f.)

67/C/25.3

SUMMARY OF RESULTS

SERIES I

	DS	DA	PS	PA	Mean
TOTAL TUBERS					
Mean (± 0.296)	2.62	6.63	9.04	8.77	6.77
		(± 0.464)*			
O	2.05	5.58	8.03	7.60	5.82
C	3.19	7.67	10.05	9.94	7.71
		(± 0.396)			(± 0.198)
O	0.93	3.88	5.80	4.94	3.89
F	4.30	9.37	12.28	12.61	9.64
% WARE 1.5 INCH RIDDLE					
Mean	73.7	86.5	88.2	94.2	85.6
O	73.4	84.9	87.8	94.4	85.1
C	74.0	88.1	88.5	94.0	86.2
O	63.8	81.2	84.4	91.2	80.1
F	83.5	91.9	91.9	97.2	91.1

* For use in interaction comparisons only.

67/C/25.4

SERIES IV

	DS	DA	PS	PA	Mean
TOTAL TUBERS					
Mean (± 0.741)	8.95	13.18	12.36	10.89	11.34
	$(\pm 0.926)^*$				
O	8.31	12.27	12.24	9.95	10.70
C	9.59	14.08	12.48	11.83	11.99
	(± 0.932)				(± 0.466)
O	5.92	10.24	10.99	8.64	8.95
F	11.99	16.11	13.73	13.14	13.74
% WARE 1.5 INCH RIDDLE					
Mean	89.4	95.5	91.2	94.5	92.7
O	89.4	95.0	92.3	93.9	92.7
C	89.4	96.0	90.2	95.1	92.7
O	83.3	94.7	90.2	94.1	90.6
F	95.6	96.3	92.3	94.9	94.8

* For use in interaction comparisons only.