

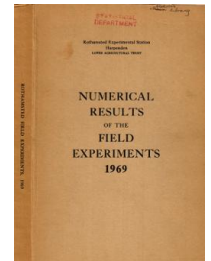
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Numerical Results of the Field Experiments 1969

[Full Table of Content](#)



Potatoes -

Rothamsted Research

Rothamsted Research (1970) *Potatoes - ; Numerical Results Of The Field Experiments 1969*, pp 295 - 318 - DOI: <https://doi.org/10.23637/ERADOC-1-96>

POTATOES

(69/R/P/1 and 69/W/P/1)

Seed stocks, diseases and fungicide Rothamsted (R), Great Knott III and Woburn (W), Workhouse 1969.

Design: 4 randomised blocks of 12 plots (11 for yield, one for sampling only), plots split into 4.

Area of each sub plot: 0.0036. Area harvested: 0.0036.

Treatments: All combinations of:-

Whole plots: 1. Seed stocks, diseases and fungicide:

F, FC, FCB, H, HC, HCB, HDE, HCOE, HCOL, HCRL, HCORL,

where F = Once grown seed from Rothamsted farm.

H = Healthy seed.

B = Seed treated with fungicide (Benomyl 10% dust and 10 lb per ton of seed).

C = Chitted seed.

O = Seed inoculated with Oospora.

R = Seed inoculated with Rhizoctonia.

E = Early inoculation.

L = Late inoculation.

Quarter plots: 2. Varieties: King Edward (KE), Majestic (M), Pentland Crown (PC), Pentland Dell (PD).

Basal applications:-

Great Knott III (R): 10.5 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb ion plus linuron at 0.75 lb in 37 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with second mancozeb spray.

Workhouse (W): 10 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb ion plus linuron at 0.5 lb in 25 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on three occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with first mancozeb spray.

Cultivations, etc:-

Great Knott III (R): Rotary cultivated: 13 - 23 Sept, 1968, and 21 Oct. Ploughed: 30 Dec - 22 Jan, 1969. Basal NPK applied: 10 Apr. Rotary cultivated: 1 May. Potatoes planted: 2 May. Rotary ridged: 5 May. Weedkiller applied: 20 May. Fungicide applied: 16 July, 4 Aug, 21 Aug. Insecticide applied: 4 Aug. Sprayed with undiluted BOV at 15 gals: 26 Sept. Haulm destroyed mechanically: 2 Oct. Lifted: 7 Oct. Previous crops: Barley 1969, spring beans 1968.

Workhouse (W): Ploughed: 19 Nov, 1968. Basal NPK applied:
9 Apr, 1969. Rotary cultivated, potatoes planted: 30 Apr.
Rotary ridged: 9 May. Weedkiller applied: 15 May. Insecticide
applied: 18 July. Fungicide applied: 18 July, 7 Aug, 27 Aug.
Sprayed with undiluted BOV at 16 gals: 25 Sept. Lifted: 10 Oct.
Previous crops: Barley 1967, spring beans 1968.

NOTE: Samples were taken on 3 occasions for tuber weight and
numbers in different sizes. After harvest, estimates were
made of tuber infection with *Oospora*, *Rhizoctonia*,
Helminthosporium and *Phoma*.

Standard errors per plot. Total tubers, tons:

Great Knott III (R):	Whole plot:	1.008 or 6.2% (30 d.f.)
	Sub plot:	0.937 or 5.7% (99 d.f.)
Workhouse (W):	Whole plot:	1.224 or 6.6% (29 d.f.)
	Sub plot:	1.219 or 6.6% (95 d.f.)

SUMMARY OF RESULTS

GREAT KNOTT III (R)

TOTAL TUBERS: TONS

	KE	M	PC	PD	Mean
	(1) and (2)				(± 0.504)
F	13.79	15.64	14.08	13.46	14.24
FC	16.87	16.88	16.13	13.31	15.80
FCB	17.31	16.47	16.23	14.89	16.22
H	14.36	14.22	16.29	13.70	14.64
HC	17.34	16.94	18.93	15.43	17.16
HCB	17.20	17.80	17.46	15.84	17.08
HDE	15.78	15.21	16.78	14.56	15.58
HCOE	16.87	18.69	18.99	16.28	17.71
HCOL	17.47	16.47	18.71	14.61	16.82
HCRL	17.03	17.76	19.46	15.30	17.39
HCORL	17.89	16.63	18.71	14.39	16.90
Mean (± 0.141)	16.54	16.61	17.43	14.71	16.32

(1) (± 0.647) For use in vertical and diagonal comparisons only(2) (± 0.468) For use in horizontal and interaction comparisons only

GREAT KNOTT III (R)

% WARE (1.7 IN. RIDDLE)

	KE	M	PC	PD	Mean
F	76.2	80.8	92.0	66.7	78.9
FC	79.1	88.9	92.1	88.9	87.3
FCB	72.2	85.0	92.2	86.0	83.8
H	77.2	84.6	91.5	81.5	83.7
HC	78.2	89.2	94.4	89.3	87.8
HCB	67.3	87.1	94.6	87.3	84.1
HOE	73.5	80.8	90.8	82.6	81.9
HCOE	77.0	89.5	94.3	87.2	87.0
HCOL	79.9	89.1	95.4	89.5	88.5
HCRL	79.9	89.1	93.9	88.3	87.8
HCORL	81.7	89.1	95.3	91.2	89.3
Mean	76.6	86.7	93.3	85.3	85.5

WORKHOUSE (W)

TOTAL TUBERS: TONS

	KE	M	PC	PD	Mean
	(1) and (2)				(± 0.612)
F	15.72	18.68	15.54	15.15	16.27
FC	17.64	19.11	19.44	16.12	18.08
FCB	18.20	19.20	20.85	16.36	18.65
H	16.10	16.19	19.96	15.09	16.83
HC	18.24	19.50	22.55	17.63	19.48
HCB	17.32	19.69	22.05	16.49	18.89
HDE	17.14	17.98	21.96	16.17	18.31
HCOE	18.97	19.60	22.89	18.03	19.87
HCOL	17.73	19.76	22.63	17.14	19.31
HCRL	18.06	19.38	21.91	17.10	19.11
HCORL	17.60	19.33	21.85	17.85	19.16
Mean (± 0.184)	17.52	18.95	21.06	16.65	18.84

(1) (± 0.808) For use in vertical and diagonal comparisons only(2) (± 0.609) For use in horizontal and interaction comparisons only

WORKHOUSE (W)
% WARE (1.75 IN. RIDDLE)

	KE	M	PC	PD	Mean
F	79.6	85.4	92.5	81.5	84.8
FC	83.7	90.0	94.4	93.2	90.3
FCB	86.2	87.6	95.0	89.5	89.6
H	80.3	85.7	91.9	82.7	85.2
HC	83.2	89.7	94.5	91.7	89.8
HCB	82.5	89.6	94.2	89.2	88.9
HOE	78.0	85.0	90.7	84.4	84.5
HCOE	82.7	86.3	93.5	90.5	88.3
HCOL	83.8	90.0	95.3	92.0	90.3
HCRL	84.7	90.3	94.7	92.0	90.4
HCORL	84.9	90.2	94.8	92.6	90.6
Mean	82.7	88.2	93.8	89.0	88.4

POTATOES

(69/R/P/2)

Chemicals and seed-borne fungi, Great Knott III 1969.

Design: 4 randomised blocks of 16 plots.

Area of each plot: 0.0036. Area harvested: 0.0036.

Treatments: All combinations of:-

1. Seed treatment with chemicals: Benomyl powder (B), thiabendazole powder (T).
2. Rates of application (R1, R2 and R3 as below): Diluted with kaolin dust to give:-
B treatment: 1% (1), 10% (2), 30% (3) a.i.
T treatment: 0.1% (1), 1.0% (2), 10% (3) a.i.
3. Time of application: 13 Feb, 1969 (E), 18 Apr (L).
Together with additional seed treatments:
None (O)
Demosan powder, diluted with kaolin dust to give 10% a.i. Applied on 18 Apr. (DL)
Agallol, 0.5% solution as 1 minute dip in autumn (A)
Kaolin dust, applied on 18 Apr. (KL)

NOTE: All dust treatments were at 10 lb per ton of seed potatoes.

Basal applications: 10.5 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb ion plus linuron at 0.75 lb in 37 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with first spray of mancozeb.

Cultivations, etc: Rotary cultivated twice: 13-23 Sept, 21 Oct, 1968. Ploughed: 30 Dec-22 Jan, 1969. Basal NPK applied: 10 Apr. Plots rotary cultivated, potatoes machine planted: 21 Apr. Weedkiller applied: 20 May. Insecticide applied: 16 July. Fungicide applied: 16 July, 4 Aug, 21 Aug. Sprayed with undiluted BOV at 15 gals: 26 Sept. Haulm destroyed mechanically: 2 Oct. Lifted: 7 Oct. Variety: King Edward. Previous crops: Barley 1967, spring beans 1968.

Standard error per plot.

Total tubers, tons: 1.226 or 8.5% (33 d.f.)

SUMMARY OF RESULTS

TOTAL TUBERS: TONS

	R1	R2	R3	E	L	Mean
	(± 0.434)			(± 0.354)		(± 0.250)
B	15.74	15.22	13.94	15.98	13.95	14.97
T	14.55	14.14	12.89	15.67	12.06	13.86
				(± 0.434)		(± 0.307)
R1				16.39	13.89	15.14
R2				15.73	13.63	14.68
R3				15.36	11.48	13.42
Mean (± 0.250)				15.83	13.00	14.41

	B		T	
	E	L	E	L
	(± 0.613)			
R1	17.00	14.47	15.78	13.31
R2	15.96	14.48	15.51	12.78
R3	14.99	12.89	15.72	10.07
	O	16.58		
	DL	10.51		
	A	15.91	(± 0.613)	
	KL	14.26		

% WARE						
	R1	R2	R3	E	L	Mean
B	68.6	68.1	64.1	68.4	65.4	66.9
T	72.5	72.6	70.5	73.1	70.7	71.9
R1				70.1	71.0	70.5
R2				71.9	68.8	70.4
R3				70.3	64.3	67.3
Mean				70.8	68.0	69.4

	B		T	
	E	L	E	L
R1	68.9	68.3	71.3	73.7
R2	70.1	66.1	73.8	71.5
R3	66.3	61.9	74.2	66.8
O				
DL				
A				
KL				

POTATOES

(69/W/P/2)

Nematodes and verticillium - Woburn Broadmead I 1969.

Design: 4 randomised blocks of 6 plots.

Area of each plot: 0.0094. Area harvested: 0.0047.

Treatments:

Chemicals and wheelmarks: None (OO), methyl bromide at 870 lb, with wheelmarks on 3 occasions (MW), methyl bromide at 870 lb, without wheelmarks (MO), temik at 60 lb a.i., without wheelmarks (TO), benomyl at 10 lb of 50% wettable powder per ton of seed, without wheelmarks (BO), wheelmarks on 3 occasions (OW).

Basal applications: 10 cwt (13:13:20), 5 cwt Epsom salts. Weedkiller:

Paraquat at 0.5 lb ion plus linuron at 0.5 lb in 25 gals.

Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions.

Insecticide: Demeton-s-methyl at 3.5 oz in 37 gals on one occasion with fungicide.

Cultivations, etc.: Ploughed: 20 Nov, 1968. NPK applied: 8 Apr, 1969.

Mg applied, methyl bromide applied under gas tight sheet:

9 Apr. Gas tight sheet removed: 14 Apr. Rotary cultivated,

potatoes planted: 25 Apr. Weedkiller applied: 15 May.

Wheelmarks applied to MW and W plots: 12 June. Grubbed, rotary

ridged MW and W plots only: 18 June. Wheelmarks applied to MW and W

plots: 14 July. Fungicide applied: 18 July, 6 Aug, 27 Aug.

Insecticide applied: 18 July. Lifted: 24 Sept. Variety:

King Edward.

NOTE: Plant samples were taken for *Heterodera rostochiensis* cyst counts in June.

Standard error per plot.

Total tubers, tons: 1.751 or 13.1% (15 d.f.)

SUMMARY OF RESULTS

OO	MW	MO	TO	BO	OW	Mean
TOTAL TUBERS: TONS						
(± 0.876)						
9.95	17.76	17.66	14.23	10.44	9.97	13.34
% WARE						
83.7	83.8	84.7	79.2	80.8	83.9	82.7

POTATOES

(69/W/P/3)

Verticillium, varieties and CCC - Woburn Broadmead I (diseased site)
and Workhouse (healthy site) 1969.

Design: 3 blocks of 2 plots split into 4.

Area of each sub plot: 0.0021. Area harvested: Broadmead I - 0.0019
Workhouse - 0.0021.

Treatments: All combinations of:-

Whole plots: 1. CCC: None (O), soil drench at 15 lb CCC
(chlormequat) (S).

Sub plots: 2. Varieties: King Edward (KE), Majestic (M),
Maris Piper (MP), Pentland Crown (PC).

Basal applications: 10 cwt (13:13:20). Weedkiller: Paraquat at 0.5 lb
ion plus linuron at 0.5 lb in 25 gals (Broadmead I), paraquat at
0.37 lb ion plus linuron at 0.5 lb in 25 gals (Workhouse).
Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions.
Insecticide: Demeton-s-methyl at 3.5 oz in 37 gals on one
occasion with fungicide.

Cultivations, etc.:

Broadmead I: Ploughed: 12 Dec, 1968. NPK applied: 8 Apr, 1969.

Rotary cultivated: 30 Apr. Potatoes planted: 1 May. Rotary

ridged: 10 May. Weedkiller applied: 15 May. CCC applied:

5 June. Fungicide applied: 19 July, 6 Aug, 27 Aug.

Insecticide applied: 19 July. Sprayed with undiluted BOV at

16 gals: 25 Sept. Lifted: 6 Oct. Previous crops: Spring beans
1967, winter wheat 1968.

Workhouse : Ploughed: 20 Nov, 1968. NPK applied: 9 Apr, 1969.

Rotary cultivated: 30 Apr. Potatoes planted: 1 May. Rotary

ridged: 9 May. Weedkiller applied: 15 May. CCC applied:

5 June. Fungicide applied: 18 July, 7 Aug, 27 Aug.

Insecticide applied: 18 July. Sprayed with undiluted BOV

at 16 gals: 25 Sept. Lifted: 6 Oct. Previous crops:

Barley 1967, spring beans 1968.

NOTE: Plant samples were taken in August for assessment of
Verticillium wilt.

Standard errors per plot. Total tubers, tons:

Broadmead I: Sub plot: 0.795 or 6.5% (12 d.f.)

Workhouse: Sub plot: 1.651 or 8.5% (12 d.f.)

SUMMARY OF RESULTS

BROADMEAD I

	KE	M	MP	PC	Mean
TOTAL TUBERS					
	$(\pm 0.459)^*$				
O	11.42	11.25	10.46	17.07	12.55
S	11.62	10.28	11.07	14.91	11.97
Mean (± 0.325)	11.52	10.76	10.76	15.99	12.26

% WARE

O	81.2	93.0	91.9	96.4	90.6
S	82.2	91.9	94.0	95.9	91.0
Mean	81.7	92.5	92.9	96.1	90.8

* For use in horizontal and interaction comparisons only

WORKHOUSE					
	KE	M	MP	PC	Mean
TOTAL TUBERS					
	(± 0.953)*				
O	19.70	18.02	16.84	22.72	19.32
S	19.14	17.96	20.06	20.79	19.49
Mean (± 0.674)	19.42	17.99	18.45	21.76	19.40
% WARE					
O	95.6	96.6	96.1	98.0	96.6
S	95.6	97.0	97.2	98.5	97.1
Mean	95.6	96.8	96.6	98.3	96.8

* For use in horizontal and interaction comparisons only

POTATOES

(69/W/P/4)

Chemicals and scab - Woburn Gt Hill Bottom I, 1969.

Design: 5 blocks of 6 plots.

Area of each plot: 0.0043. Area harvested: 0.0021.

Treatments:

Chemicals: None (O), 'N-Serve' to sulphate of ammonia 2.9 lb, 2% of the N (N), folpet 70 lb a.i. as 20% dust (F), quintozone 70 lb a.i. as 20% dust (Q), thiram 70 lb a.i. as 15% dust (T), zineb 70 lb a.i. as 15% dust (Z).

Basal applications: 8.5 cwt (0:14:28), 6 cwt sulphate of ammonia.

Weedkiller: Paraquat at 0.37 lb ion plus linuron at 0.5 lb in 25 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz in 37 gals on one occasion.

Cultivations, etc.: Ploughed: 3 - 30 Jan, 1969. PK Broadcast: 14 Apr. N applied, treatments applied, rotary ridged, potatoes planted: 18 Apr. Weedkiller applied: 15 May. Rotary ridged: 17 June. Fungicide applied: 19 July, 7 Aug, 27 Aug. Insecticide applied: 19 July. Sprayed with undiluted BOV at 16 gals: 25 Sept. Lifted: 3 Oct. Variety: Maris Piper. Previous crops: Green manures 1967, sugar beet, barley 1968.

NOTE: Soil samples were taken for residues of quintozone.

Standard error per plot.

Total tubers, tons: 1.393 or 7.4% (20 d.f.)

SUMMARY OF RESULTS

O	N	F	Q	T	Z	Mean
TOTAL TUBERS: TONS						
(±0.623)						
18.73	16.60	19.85	19.32	19.81	19.39	18.95
% WARE						
97.0	95.2	96.8	97.3	96.9	97.3	96.8

POTATOES

(69/R/P/6)

Blight reference plots, Long Hoos V 1969.

Design: 4 randomised blocks of 3 plots.

Area of each plot: 0.0071. Area harvested: 0.0067.

Treatments: Fungicide spray:-

None	(O)
Sprayed with mancozeb at 1.2 lb in 37 gals on 3 occasions	(F)
Sprayed with mancozeb as above, plots used for sampling	(FS)

Basal applications: 10 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb ion plus linuron at 0.75 lb in 37 gals.

Cultivations, etc.: Ploughed: 23 Oct, 1968. Basal NPK applied: 14 Apr, 1969. Rotary cultivated, potatoes machine planted: 18 Apr. Weedkiller applied: 13 May. Grubbed: 18 June. Earthed up: 27 June. Mancozeb applied: 16 July, 4 Aug, 21 Aug. Sprayed with undiluted BOV at 15 gals: 5 Sept. Haulm destroyed mechanically: 17 Sept. Lifted: 24 Sept. Variety: King Edward. Previous crops: Spring wheat 1967, oilseed rape 1968.

NOTE: No blighted tubers were found.

SUMMARY OF RESULTS

O	F	Mean
TOTAL TUBERS:TONS		
15.57	15.38	15.48
% WARE		
94.0	94.2	94.1

POTATOES

(69/W/P/6)

Deeply injected fertiliser - Woburn Stackyard C 1969.

Design: 3 blocks of 10 plots.

Area of each plot: 0.0022. Area harvested: 0.0022.

Treatments: FYM, fertilisers and methods of application:

F2D, F4D, F2DS, F4DS, F2S, F4S, D2, D4, D2F2S, D4F2S where
D2: D4 = 15: 30 tons FYM dug in
F2: F4 = 2.0 cwt N, 3.0 cwt P2O5, 3.0 cwt K2O, 4.0 cwt N, 6.0 cwt
P2O5, 6.0 cwt K2O as 'Nitro-Chalk' 21% N and compound
fertiliser (0:20:20).

DE: S: DES = Applied deeply: shallowly: half deeply and half shallowly.

Basal applications: 3 tons ground chalk, 5 cwt kieserite. Insecticides:
Malathion at 0.6 pts in 50 gals. Dimethoate at 0.3 lb in 40 gals on
two occasions with fungicide. Fungicide: Fentin hydroxide at 0.07
lb plus maneb at 0.53 lb in 40 gals on two occasions with dimethoate,
fentin hydroxide at 0.1 lb plus maneb at 0.8 lb in 40 gals on one
occasion.

Cultivations, etc.: Ploughed: 7 Feb, 1969. Ground chalk, FYM and
deeply applied PK applied and dug in: 6 Mar. Deep N applied
and rotary cultivated, shallow N, PK, basal Mg applied and raked
in, potatoes planted: 15 Apr. Ridged: 16 Apr. Earthed up,
malathion applied: 12 June. Dimethoate and fungicide applied:
2 July, 16 July. Fungicide applied: 21 Aug. Lifted: 1 Oct.
Variety: King Edward. Previous crops: Spring wheat 1967,
fallow 1968.

Standard error per plot.

Total tubers, tons: 1.270 or 6.3% (18 d.f.)

SUMMARY OF RESULTS

	TOTAL TUBERS, TONS	% WARE
	(± 0.733)	
F2 DE	20.28	81.8
F ¹ / ₄ DE	24.37	86.0
F2 DES	20.94	83.2
F ¹ / ₄ DES	21.21	88.3
F2 S	20.34	82.7
F ¹ / ₄ S	17.42	85.3
D2	14.89	80.8
D4	16.59	81.1
D2F2 S	22.14	85.9
D4F2 S	23.14	86.6
Mean	20.13	84.2

POTATOES

(69/R/P/7)

Comparison of fungicides - Long Hoos V 1969.

Design: 6 x 6 Latin square.

Area of each plot: 0.0129. Area harvested: 0.0043.

Treatments:

No fungicide	(O)
Fentin acetate at 0.3 lb plus maneb at 0.1 lb	(A)
Fentin acetate at 0.1 lb plus maneb at 0.03 lb	(B)
Fentin acetate at 0.1 lb plus maneb at 0.03 lb plus 10 lb wax	(C)
Dibutyltin acetate at 0.7 lb a.i.	(D)
Fentin sulphide at 0.35 lb a.i.	(E)

All the fungicides were applied in 70 gals.

Basal applications: 10 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb
ion plus linuron at 0.75 lb in 37 gals.

Cultivations, etc.: Ploughed: 23 Oct, 1968. Basal NPK applied:
14 Apr, 1969. All plots rotary cultivated, potatoes machine
planted: 18 Apr. Weedkiller applied: 13 May. Grubbed: 18 June.
Earthed up: 27 June. Fungicide sprays applied: 22 July.
Sprayed with undiluted BOV at 15 gals: 5 Sept. Haulm destroyed
mechanically: 17 Sept. Lifted: 24 Sept. Variety: King Edward.
Previous crops: Winter wheat 1967, oilseed rape 1968.

Standard error per plot.

Total tubers, tons: 0.487 or 3.2% (20 d.f.)

SUMMARY OF RESULTS

O	A	B	C	D	E	Mean
TOTAL TUBERS, TONS						
(±0.199)						
15.53	15.22	15.77	14.83	15.18	15.68	15.37
% WARE						
95.1	94.4	94.5	94.9	94.4	95.1	94.8

POTATOES

(69/R/P/8)

Growth regulators, Great Knott III 1969.

Design: 4 randomised blocks of 7 plots.

Area of each plot: 0.0214. Area harvested: 0.0027.

Treatments: Growth regulators (in lb active ingredient in 40 gals):-

None		(O)
B-nine	2.0	(B)
Chlormequat	2.0	(C)
Ethrel	0.3	(E1)
Ethrel	1.0	(E2)
Morphactin	0.05	(M1)
Morphactin	0.01	(M2)

(Note rate M2 was less than rate M1)

Basal applications: 10.5 cwt (13:13:20). Weedkiller: Paraquat at 0.375 lb ion plus linuron at 0.75 lb in 37 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with first mancozeb spray.

Cultivations, etc.: Rotary cultivated twice: 13-23 Sept, 1968 and 21 Oct. Ploughed: 30 Dec-22 Jan, 1969. Basal NPK applied: 10 Apr. All plots rotary cultivated, potatoes machine planted: 18 Apr. Weedkiller applied: 13 May. Grubbed: 19 June. Growth regulators applied: 25 June. Earthed up: 27 June. Insecticide applied: 16 July. Fungicide applied: 16 July, 4 Aug, 21 Aug. Sprayed with undiluted BOV at 15 gals: 26 Sept. Haulm destroyed mechanically: 2 Oct. Lifted: 8 Oct. Variety: King Edward. Previous crops: Barley 1967, spring beans 1968.

NOTE: From July 17, 6 plants were taken from each plot every 3 weeks, for estimates of tuber number and size, leaf area and dry weights.

Standard error per plot.

Total tubers, tons: 1.217 or 7.7% (18 d.f.)

SUMMARY OF RESULTS

O	B	C	E1	E2	M1	M2	Mean
TOTAL TUBERS: TONS							
(± 0.608)							
17.01	17.09	17.10	15.08	14.39	14.96	14.99	15.80
% WARE							
93.5	89.3	93.7	90.3	83.5	92.7	93.5	90.9