

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 1975

[Full Table of Content](#)



75/ R/RN/8 - Cultivation/WEEDKILLER - Barley

Rothamsted Research

Rothamsted Research (1976) 75/ R/RN/8 - Cultivation/WEEDKILLER - Barley ; Yields Of The Field Experiments 1975, pp 97 - 99 - DOI: <https://doi.org/10.23637/ERADOC-1-141>

75/R/RN/8

CULTIVATION/WEEDKILLER

Object: To study the long term effects of weedkillers and different methods of primary cultivation on a rotation of crops - Great Harpenden I.

Sponsors: R. Moffitt, G.V. Dyke, J.A. Currie.

The 15th year, barley.

For previous years see 'Details' 1967, 68/E/6(t), 69/R/RN/8(t), 70/R/RN/8, 71/R/RN/8(t) and 72-74/R/RN/8.

Design: 2 randomised blocks of 12 plots split into 2.

Whole plot dimensions: 12.8 x 15.2.

Treatments: All combinations of:-

Whole plots: 1. Primary cultivations annually:	CULTIVAT
Ploughed, 19 Mar, 1975	PLOUGH
Rotary cultivated, 20 Mar	ROTAVATE
Deep-tine cultivated twice, 17, 18 Mar	DEEPTINE
2. Weed control to potatoes 1974:	WEEDCNTR(74)
Mechanical	MECHANCL
Linuron plus paraquat	LIN/PAR
Linuron plus paraquat. Grubbed and rotary ridged	LIN/PARR
Sub plots: 3. Hormone weedkiller to barley 1975:	WEEDKILL(75)
None	NONE
Dicamba plus mecoprop and MCPA ('Tetralix Plus' at 7.0 l in 220 l) 6 June, 1975	DI/ME/MC
4. Paraquat weedkiller to wheat stubble autumn 1973:	WEEDKILL(73)
None	NONE
Paraquat	PARAQUAT
plus three extra treatments:-	EXTRA

75/R/RN/8

Spike rotary cultivated, 23 Apr. Given linuron plus paraquat to potatoes 1974, with sub plot treatments 3 and 4 above.

SPIKE

Shallow ploughed, 28 Feb. Given linuron plus paraquat to potatoes 1974, whole plot given paraquat as 4 above, with sub plot treatment 3 above

(SH)PLCH

Standard cultivations as considered best for each crop. Deep-tine cultivated twice, 19 Mar for barley. Given linuron plus paraquat and grubbed and rotary ridged to potatoes 1974, with sub plot treatments 3 and 4 above.

STANDARD

Basal applications: Manures (20:14:14) at 380 kg combine drilled.

Seed: Julia, dressed with ethirimol, sown at 160 kg.

Cultivations, etc.:- Spring-tine cultivated: 24 Dec, 1974. Seed sown: 23 Apr, 1975. Combine harvested: 21 Aug.

75/R/RN/3

BARLEY

GRAIN TONNES/HECTARE

*** TABLES OF MEANS ***

OMITTING EXTRA PLOTS

CULTIVTN	PLOUGH	ROTAVATE	DEEPTINE	MEAN
WEEDCNTL(74)				
MECHANCL	3.70	3.33	3.68	3.57
LIN/PAR	3.79	3.55	3.72	3.69
LIN/PARR	3.83	3.43	4.09	3.78
WEEDKLLR(75)				
NONE	3.89	3.74	3.54	3.72
DI/ME/MC	3.66	3.14	4.12	3.64
WEEDKLLR(73)				
NONE	3.94	3.56	3.73	3.74
PARAQUAT	3.61	3.32	3.94	3.62
MEAN	3.77	3.44	3.83	3.68

EXTRA PLOTS ONLY

EXTRA	SPIKE	(SH)PLGH	STANDARD
WEEDKLLR(75)			
NONE	3.53	4.06	3.89
DI/ME/MC	3.80	4.15	4.51
WEEDKLLR(73)			
NONE	4.04		4.00
PARAQUAT	3.29	4.11	4.39
MEAN	3.66	4.11	4.20

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	CULTIVTN	WEEDCNTL(74)	WEEDKLLR(73)	WEEDKLLR(75)
SED	0.189	0.189	0.143	0.143

TABLE	CULTIVTN	CULTIVTN	CULTIVTN
	WEEDCNTL(74)	WEEDKLLR(73)	WEEDKLLR(75)
SED	0.328	0.258	0.258
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:			
CULTIVTN		0.248	0.248

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	8	0.328	8.9
BLOCK.WP.SP	8	0.429	11.7

GRAND MEAN 3.76

GRAIN MEAN DM% 81.6

SUB PLOT AREA HARVESTED 0.00434