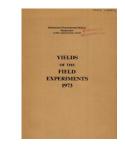
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Yields of the Field Experiments 1973



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Rothamsted Research

Rothamsted Research (1974) 73/R/RN/8 - Cultivation/WEEDKILLER - Wheat; Yields Of The Field Experiments 1973, pp 110 - 112 - DOI: https://doi.org/10.23637/ERADOC-1-98

73/R/RN/8

CULTIVATION/WEEDKILLER

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

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

The 13th year, winter wheat.

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

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

Whole plot dimensions: 12.8 x 15.2. Sub plot area harvested: 0.00434.

Treatments: All combinations of:Whole plots: (1) Primary cultivations annually:-

CULTIVIN

Ploughed: 18 Oct, 1972, power harrowed and disced: 24 Oct Plough Rotary cultivated: 9 Nov Rotavate Deep-time cultivated twice: 18 Oct, spring-

tine cultivated: 23 Oct

Deeptine

(2) Weed control to beans 1972:-

WEEDKLLR(72)

Mechanical Mechancl
Simazine at 1.12 kg Simazine
Dinoseb acetate at 6.73 kg Dinoseb

Sub plots: (3) Paraquat to bean stubble:-

PARAQUAT

None 0.00 0.56 kg ion in 220 1: 5 Oct 0.56

(4) Weed control to wheat in 1973:-

WEEDKLLR(73)

None Ioxynil at 0.63 kg and mecoprop at 1.9 kg in 220 1: 17 Apr, 1973 None Ioxy/mec

73/R/RN/8

together with three extra plots, all of which received simazine at 1.12 kg to beans 1972:-

EXTRA

Spike rotary cultivated: 17 Oct, with sub plot treatments (3) and (4) above Shallow ploughed: 18 Oct, power harrowed and

Spiked

Shallow ploughed: 18 Oct, power harrowed and disced: 24 Oct, whole plot received paraquat as (3) above, sub plot treatments (4) only Standard cultivation, ploughed for wheat: 18 Oct,

ShalloPl

power harrowed and disced: 24 Oct, with sub plot treatments (3) and (4)

Standard

NOTE: From 1973 only one phase of the rotation, wheat, potatoes, barley, beans, is maintained each year.

Basal applications: Manures: (10:24:24) at 250 kg combine drilled. 'Nitro-Chalk' at 375 kg.

Seed: Bouquet, sown at 200 kg.

Cultivations, etc.:- Seed sown: 9 Nov, 1972. N applied: 12 Apr, 1973. Combine harvested: 24 Aug.

NOTE: Scores were made for weed infestation on all sub plots.

Standard errors per plot (omitting EXTRA plots). Grain, tonnes/hectare: Whole plot: 0.476 or 8.0% (8 d.f.) Sub plot: 0.411 or 6.9% (8 d.f.)

GRAIN: TONNES/HECTARE 73/R/RN/8 TABLES OF MEANS

	Plough	CULTIVIN	Deeptine	Mean	Spiked	EXTRA ShalloPl	Standard
Mean	5.48	6.33	6.10	5.97	5.36	5.06	5.80
WEEDKILR(72)				Ligg			
Mechancl Simezine Dinoseb	5.91	6.48 6.93 6.50	6.23	6.21 5.78 5.93			ide to I
PARAGUAT				e1 ,			
0.00	5.51	6.40	5.95	5.93	5.16	5.17	5.56
WEEDKIIR (73)				Last meter			
None Ioxy/mec	5.29	6.58	6.50	6.25	5.22	4.62	5.64
STANDARD ERF	STANDARD ERRORS OF DIFFERENCES	INCES					
CULTIVIN	WEEDKIIR (72)	PARAQUAT W	PARAQUAT WEEDKIIR(73)	CULTIVIN WEEDKIIR(72)	CULTIVIN	CULTIVIN WEEDKIIR(73)	y toda • snie
0.275 Except when	0.275 0.137 0.137 0.4 comparing means with same level of: CULTIVEN	0.137 us with same	0.137 level of: CU	0.476 ILTIVIN	0.322	0.322	
	2.03						

Mean D.M. % 86.6