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Yields of the Field Experiments 1984



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84/R/WW/4 Weedkiller Rates - W. Wheat

Rothamsted Research

Rothamsted Research (1985) 84/R/WW/4 Weedkiller Rates - W. Wheat ; Yields Of The Field Experiments 1984, pp 228 - 229 - DOI: https://doi.org/10.23637/ERADOC-1-32

84/R/WW/4

WINTER WHEAT

WEEDKILLER RATES

Object: To study the effects of weedkillers applied at different rates by electrostatic or hydraulic sprayers - Stackyard.

Sponsors: G.R. Cayley, D.C. Griffiths, B.J. Pye, P. Etheridge, G.C. Scott, F.T. Phillips.

Design: 4 randomised blocks of 8 plots.

Whole plot dimensions: 3.0 x 30.0.

Treatments: All combinations of:-

1. SPRAYERS Spraying machine:

HYDRAUL Conventional hydraulic sprayer ELECTRO Electrostatic sprayer

RATES Rates of isoproturon + mecroprop:

STANDARD	Standard rate mecoprop at 2.0 1, isoproturon at 2.43 1 on 15 Nov, 1983	
HALF QUARTER	Half above rate Quarter above rate	

plus one extra treatment:

EXTRA

NONE No weedkiller

- NOTES: (1) The conventional hydraulic sprayer was tractor mounted and applied the weedkillers in 200 l.
 - (2) The electrostatic sprayer was also tractor mounted and had spinning cones charged at 30 kv and applied the weedkillers in 10 1.

Basal applications: Manures: 'Nitro-Chalk' at 750 kg. Fungicides: Prochloraz at 0.40 kg and carbendazim at 0.15 kg in 250 l. Maneb at 1.6 kg, carbendazim at 0.15 kg and tridemorph at 0.38 kg with captafol at 1.2 kg in 250 l. Insecticide: Pirimicarb at 0.14 kg in 200 l.

Seed: Avalon, sown at 170 kg.

- Cultivations, etc.:- Ploughed: 31 Aug, 1983. Spring-tine cultivated twice, rotary harrowed, seed sown: 20 Sept. N applied: 9 Apr, 1984. Prochloraz and carbendazim applied: 25 Apr. Maneb, carbendazim, tridemorph and captafol applied: 12 June. Insecticide applied: 26 June. Combine harvested: 21 Aug. Previous crops: W. wheat 1982, w. beans 1983.
- NOTE: Samples of volunteer beans, winter wheat crop, and weeds were taken immediately after spraying for analysis of weedkiller deposits. Weed counts were made in November 1983, and January, February and May 1984.

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84/R/WW/4

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

RATES		HALF	QUARTER	MEAN	
HYDRAUL	12.19		11.18	11.61	
ELECTRO	11.77	11.14	10.80	11.24	
MEAN	11.98	11.30	10.99	11.42	
NONE	9.48				
GRAND MEAN	11.15				
**** STANDAR	D ERRORS OF DI	FFERENCES	OF MEANS *	****	
TABLE	SPRAYERS	RAT	ES SPRAY		
			DA	TES	
				ONE	
SED	0.185	0.2		ONE	
			& N 27 0.	321	****
**** STRATUM	STANDARD ERRO	RS AND CO	& N 27 O. EFFICIENTS	ONE 321 OF VARIATION	****
***** STRATUM STRATUM	STANDARD ERRO	RS AND CO DF	& N 27 O. EFFICIENTS SE	ONE 321 OF VARIATION CV%	****
**** STRATUM	STANDARD ERRO	RS AND CO	& N 27 O. EFFICIENTS	ONE 321 OF VARIATION	****
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