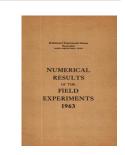
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Yields of the Field Experiments 1963



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63/W/WCW/B/11 Weedkiller-cultivation Rotation

Rothamsted Research

Rothamsted Research (1964) 63/W/WCW/B/11 Weedkiller-cultivation Rotation; Yields Of The Field Experiments 1963, pp 123 - 125 - DOI: https://doi.org/10.23637/ERADOC-1-183

63/B/11.1

CULTIVATION - WEEDKILLER ROTATION

(WCW)

A comparison of weed control by various cultivation methods and by a preemergence weedkiller - Woburn Great Hill I and II 1963, the fourth year.

For history, rotation etc., see 'Numerical Results of the Field Experiments' 60/B/11, 61/B/11 and 62/B/11.

Area of each plot (acres): 0.0482. Area harvested: Potatoes - 0.0107, barley - 0.0115.

Treatments.

Potatoes: All combinations of: -

Initial cultivations: Ploughed (P), rotary cultivated (R), rigidtine cultivated (T).

Treatments after planting: Normal cultivations (M), prometryne* plus paraquat* applied immediately before crop emergence (S) - duplicate plots.

Barley: All combinations of: -

Initial cultivations: As for potatoes.

Prometryme to potatoes 1962: None (0), after planting (X), after early cultivations (Y).

*Prometryne at 2 lb, plus 0.75 lb paraquat, in 40 gallons per acre.

Basal dressings per acre:

Potatoes: 10 cwt compound fertiliser (17% N, 11% P205, 22% K20).

Barley: 3.5 cwt compound fertiliser (16% N, 9% P205, 9% K20)

combine drilled.

Cultivations, etc.:

Potatoes: T plots rigid-tine cultivated twice: Nov 6, 1962. R plots rotary cultivated (one stroke), P plots ploughed: Nov 9. Ground chalk applied at 62 cwt per acre: Feb 20, 1963. P and T plots spring-tine cultivated: Apr 18. Basal dressing applied: Apr 22. P and T plots spring-tine cultivated: Apr 23. R plots rotary cultivated, potatoes machine planted: Apr 24. Ridges rolled: Apr 27. M plots chain harrowed: May 9. Prometryne and paraquat treatment applied: May 24. M plots grubbed: May 25 and June 18. M plots earthed up: June 24. Sprayed with copper oxychloride fungicide at 2.3 lb Cu in 20 gallons per acre: July 25, and again at the same rate, plus 0.35 pints of menazon (against aphids) in

63/B/11.2

30 gallons per acre: Aug 22. Haulm destroyed with diquat at 0.9 pints in 40 gallons per acre: Sept 23. Lifted: Oct 10. Variety: Majestic.

Barley: T plots rigid-time cultivated on 2 occasions: Nov 6 and 9, 1962. R plots rotary cultivated, P plots ploughed: Nov 9. Ground chalk applied at 62 cwt per acre: Feb 20, 1963. P and T plots spring-time cultivated, R plots rotary cultivated: Apr 11. Seed drilled at 2.3 bushels per acre: Apr 18. Sprayed with mecoprop/2,4-D at 6 pints in 40 gallons per acre: May 21. Combine harvested: Sept 9. Variety: Proctor.

Standard errors per plot.

Potatoes, total tubers: 1.702 tons per acre or 13.5% (11 d.f.)

Barley, grain (at 85% dry matter): 1.63 cwt per acre or 6.7% (8 d.f.)

63/B/11.3

Summary of Results

Potatoes

_		Initial cultivation			
Treatments after planting		P	R	T	Mean
	See district	Total tube	rs: tons per	acre	
M	(±1.204) (±0.851)	11.48	11.86 12.54	10.89 14.14	11.41 (±0.695) 13.24 (±0.491)
Mean	(±0.695)	12.52	12.31	13.05	12.63
	Ī	Percentage wa	re (1.5 inch :	riddle)	
M S		81.0 82.9	80.5 81.4	80.5 85.8	80.6 83.4
Mean		82.3	81.1	84.0	82.4
			Barley		
		In	itial cultiva	tion	1
Prometryne to potatoes 1962		P	R	T	Mean
	Grain	(at 85% dry	matter): cwt	per acre	
		1	(±1.15)		(±0.67)
X Y		24.4 25.8 23.6	24.4 24.8 23.7	23.6 24.3 23.1	24.2 25.0 23.5
Mean (±0.67)	24.6	24.3	23.7	24.2

Mean dry matter % as harvested: 79.4

For explanation of treatment symbols see page 63/B/11.1