

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 1965

[Full Table of Content](#)



65/R/CW/B/8 Cultivation-weedkiller Rotation

Rothamsted Research

Rothamsted Research (1966) *65/R/CW/B/8 Cultivation-weedkiller Rotation ; Yields Of The Field Experiments 1965*, pp 111 - 115 - DOI: <https://doi.org/10.23637/ERADOC-1-159>

65/B/8.1

CULTIVATION - WEEDKILLER ROTATION

(CW)

Great Harpenden I 1965 - the 5th year

A comparison of weed control by various cultivation methods and by pre-emergence weedkillers.

For previous history, rotation, treatments etc., see 'Results' 61/B/10, 62/B/10, 63/B/10 and 64/B/9.

Area harvested: Winter beans - 0.0110. Winter wheat, potatoes and barley: 0.0107.

Because of difficulty in drilling close rows, winter beans on the T plots were all sown at 21 inch row spacing.

Weedkillers used on potatoes 1965: As 1964.

Operations in 1965

Cultivations, etc.:-

Winter beans: T plots rigid-tine cultivated 3 times: Oct 22, 1964. P,A and reserve plots ploughed: Oct 23. P,A and reserve plots disced: Oct 26. T plots disced: Oct 27. R plots rotary cultivated: Oct 29. Seed drilled at 275 lb: Nov 2. X and Y plots sprayed: Nov 9. Y plots sprayed: Mar 15, 1965. M and reserve plots tractor hoed: May 13. 11 ft at each end of all plots sprayed with menazon at 4 oz in 40 gals: June 14, and again at 6 oz in 37 gals: July 1. Combine harvested: Sept 28.

Winter wheat: Sprayed with aminotriazole at 4 lb and ammonium thiocyanate at 3.7 lb in 40 gals: Oct 24, 1964. T plots rigid-tine cultivated 3 times: Dec 1. P,A and reserve plots ploughed: Dec 2. R plots rotary cultivated, P, T, A and reserve plots spring-tine cultivated, seed drilled at 185 lb: Dec 22. All plots harrowed: Apr 13, 1965. 'Nitro-Chalk' applied: Apr 15. H sub plots and reserve plots sprayed with mecoprop/2,4-D (Methoxone Extra at 7 pints in 40 gals): May 6. Combine harvested: Sept 13.

Potatoes: Sprayed with aminotriazole at 4 lb and ammonium thiocyanate at 3.7 lb in 40 gals: Oct 24, 1964. T plots rigid-tine cultivated 3 times: Dec 1. P and reserve plots ploughed: Dec 3. R plots rotary cultivated: Dec 22. T,P and reserve plots spring-tine cultivated: Apr 6, 1965. Basal compound fertiliser applied, T,P and reserve plots spring-tine

65/B/8.2

cultivated, A plots rotary cultivated twice, R plots once, potatoes machine planted: Apr 7. Ridges rolled: May 8. M and reserve plots chain harrowed, X and Y plots sprayed: May 10. M and reserve plots grubbed: May 11. M and reserve plots weeded mechanically: May 31. M and reserve plots grubbed second time: June 2. M and reserve plots earthed up: June 21. Sprayed 3 times with mancozeb at 1.2 lb in 37 gals: July 1, July 28, Aug 10. Sprayed with diquat (Reglone at 4 pints in 40 gals): Sept 6. Haulm destroyed mechanically: Sept 13. Lifted: Oct 11.

Barley: All plots spring-tine cultivated twice, sprayed with sodium trichloroacetate at 18 lb in 40 gals: Oct 22, 1964. All plots spring-tine cultivated: Nov 25. Sprayed second time with sodium trichloroacetate at 18 lb in 40 gals: Nov 26. All plots spring-tine cultivated: Dec 22. T plots rigid-tine cultivated twice, P and reserve plots ploughed, R plots rotary cultivated: Jan 19, 1965. A plots rotary cultivated, all other plots spring-tine cultivated, seed drilled at 155 lb: Mar 29. H sub-plots and reserve plots sprayed with mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals): May 13. Combine harvested: Sept 2.

Standard errors per plot.

Winter beans.	Grain, whole plot: 2.81 or 11.3% (8 d.f.)
Potatoes.	Total tubers, whole plot: 0.590 or 3.0% (8 d.f.) sub plot: 0.755 or 3.9% (9 d.f.)
Barley.	Grain, whole plot: 1.89 or 4.8% (8 d.f.) sub plot: 0.99 or 2.5% (9 d.f.)
Winter wheat.	Grain, whole plot: 1.70 or 3.6% (11 d.f.) sub plot: 1.43 or 3.0% (12 d.f.)

65/B/8.3

SUMMARY OF RESULTS

	P	R	T	Mean
WINTER BEANS				
GRAIN				
Mean (± 1.15)	24.4	24.7 (± 1.99)	25.8	25.0 (± 1.15)
M	28.5	29.4	24.6	27.5
X	23.4	22.2	24.3	23.3
Y	21.3	22.3	28.6	24.1
	AY	Reserve M		
	23.0	27.2		

General mean: 25.2

Mean D.M. %: 72.7

WINTER WHEAT				
GRAIN				
Mean (± 0.69)	47.8	47.6	47.7	47.7
1964				
M (± 1.20)	47.6	45.9	48.9	47.5 (± 0.69)
X (± 0.85)	47.9	48.4	47.1	47.8 (± 0.49)
1965		(1) and (2)		(± 0.34)
-	49.5	50.2	49.7	49.8
H	46.0	45.0	45.8	45.6
	AX-	AXH	Reserve XH	
	47.5	46.6	46.8	

General mean: 47.5

Mean D.M. %: 76.8

- (1) (± 0.58) For use in vertical and interaction comparisons
 (2) (± 0.81) For use in horizontal and diagonal comparisons

65/B/8.4

POTATOES

	P	R	T	Mean
TOTAL TUBERS				
Mean (± 0.241)	18.90	19.37	19.92	19.40
1964		(± 0.417)		(± 0.241)
M	19.05	19.83	20.30	19.72
X	19.29	18.97	20.09	19.45
Y	18.37	19.32	19.38	19.02
	AX	Reserve M		
	19.19	20.48		

General mean: 19.56

% WARE

Mean	97.4	97.7	97.7	97.6
M	97.7	97.8	98.2	97.9
X	96.7	97.4	97.9	97.3
Y	97.8	97.9	97.1	97.6
	AX	Reserve M		
	98.0	97.8		

General mean: 97.7

65/B/8.5

BARLEY

GRAIN

	P	R	T	Mean
Mean (± 0.77)	39.1	40.5	39.8	39.8
1964		(± 1.34)		(± 0.77)
M	38.1	39.4	40.7	39.4
X	39.4	41.9	39.0	40.1
Y	39.9	40.3	39.7	40.0
1965		(1) and (2)		(± 0.23)
-	39.4	41.2	40.7	40.4
H	38.8	39.9	38.9	39.2
	AX-	AXH	Reserve MH	
	42.5	40.4	39.2	

General mean: 39.8

Mean D.M. %: 76.6

- (1) (± 0.40) For use in vertical and interaction comparisons
 (2) (± 0.82) For use in horizontal and diagonal comparisons