

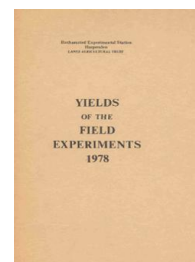
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## Yields of the Field Experiments 1978

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### 78/R/RN/8 Cultivation/WEEDKILLER - Barley

#### Rothamsted Research

Rothamsted Research (1979) *78/R/RN/8 Cultivation/WEEDKILLER - Barley* ; Yields Of The Field Experiments 1978, pp 96 - 98 - DOI: <https://doi.org/10.23637/ERADOC-1-30>

78/R/RN/8

CULTIVATION/WEEDKILLER

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

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

The 18th year, barley.

For previous years see 'Details' 1967 and 1973 and 74-77/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. CULTIVTN            Primary cultivations annually:  
    PLOWGH            Ploughed: 6 Dec, 1977  
    ROTAVATE          Rotary cultivated: 9 Dec  
    DEEPTINE          Deep-tine cultivated twice: 5 Dec
2. WEEDCNTL(76)      Weed control to beans and potatoes in the rotation beans, wheat, potatoes, barley practised until 1976. Last applied to beans 1976:  
  
    MECHANCL          Mechanical  
    RESIDUAL          Residual weedkiller (duplicated)

Sub plots

3. WEEDKLLR(75)      Hormone weedkiller to cereals in the previous rotation, last applied to barley 1975 (basal hormone weedkiller to spring wheat 1977 and barley 1978):  
  
    NONE              None  
    HORMONE            Hormone weedkiller
4. WEEDKLLR(78)      Paraquat weedkiller to cereal stubbles: 2 Dec:  
  
    NONE  
    PARAQUAT

NOTE: The combinations of 3 and 4 are tested on half plots: WEEDKLLR(75) NONE, WEEDKLLR(78) NONE and WEEDKLLR(75) HORMONE, WEEDKLLR(78) PARAQUAT on one block, remaining combinations on the other.

- EXTRA                    plus three extra whole plot treatments:
- SPNGTINE              Heavy spring-tine cultivated twice: 5 Dec, 1977. Given simazine to beans 1976, with sub plot tests 3 and 4 above.
  - (SH)PLGH              Shallow ploughed: 9 Dec, 1977. Given simazine to beans 1976 and paraquat to cereal stubbles with sub plot test 3 above.

78/R/RN/8

STANDARD Standard cultivations as considered best for each crop.  
Ploughed 6 Dec, 1977. Given simazine to beans 1976, with  
sub plot tests 3 and 4 above.

Basal applications: Manures: (20:14:14) at 440 kg, combine drilled. Weedkiller:  
Ioxynil plus mecoprop ('Atril C' at 7.0 l in 220 l). Fungicide: Tridemorph  
at 0.53 kg in 220 l.

Seed: Porthos, sown at 160 kg.

Cultivations, etc.: - Power harrowed: 5 Apr, 1978. Seed sown: 6 Apr. Rolled:  
7 Apr. Weedkiller and fungicide applied: 26 May. Combine harvested:  
8 Sept.

EXTRA PLOTS ONLY

GRAIN TONNES/HECTARE

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

EXTRA	SPNGTINE	(SH)PLGH	STANDARD
WEEDKLLR(75)			
NONE	5.64	5.55	5.74
HORMONE	5.72	5.64	5.39
WEEDKLLR(78)			
NONE	5.78		5.50
PARQUAT	5.58	5.59	5.63
MEAN	5.68	5.59	5.56

GRAIN MEAN DM% 79.7

SUB PLOT AREA HARVESTED 0.00408

