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## Yields of the Field Experiments 2000

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### 00/R/WW/6 Herbicide Resistant Black-grass - W. Wheat

#### Rothamsted Research

Rothamsted Research (2001) *00/R/WW/6 Herbicide Resistant Black-grass - W. Wheat* ; Yields Of The Field Experiments 2000, pp 121 - 123 - DOI: <https://doi.org/10.23637/ERADOC-1-55>

00/R/WW/6

WINTER WHEAT

HERBICIDE RESISTANT BLACK-GRASS

**Object:** To evaluate the efficacy of different herbicide treatments on a herbicide-resistant black-grass population - Claycroft.

**Sponsors:** S.R. Moss.

**Design:** 4 randomised blocks of 15 plots.

**Whole plot dimensions:** 3.0 x 12.0.

**Treatments:**

HERBICIDE	Herbicide type, rate of active ingredient and timing (black-grass growth stage):
A	Isoproturon at 2.5 kg post emergence
B	Tri-allate at 2.25 kg pre-emergence and trifluralin at 0.96 kg with isoproturon at 1.5 kg post emergence
C	Tri-allate at 2.25 kg pre-emergence and pendimethalin at 1.32 kg with isoproturon at 1.5 kg post emergence
D	Trifluralin at 0.96 kg pre-emergence and flupyrsulfuron-methyl at 0.01 kg with pendimethalin at 1.32 kg post emergence
E	Tri-allate at 2.25 kg pre-emergence and flupyrsulfuron-methyl at 0.01 kg with pendimethalin at 1.32 kg post emergence
F	Tri-allate at 2.25 kg pre-emergence and flupyrsulfuron-methyl at 0.01 kg with trifluralin at 0.96 kg post emergence
G	Tri-allate at 2.25 kg pre-emergence and clodinafop-propargyl at 0.03 kg with trifluralin at 0.96 kg and adjuvant at two leaf stage
H	Tri-allate at 2.25 kg pre-emergence and clodinafop-propargyl at 0.03 kg with trifluralin at 0.96 kg, flupyrsulfuron at 0.01 kg and adjuvant at two leaf stage
J	Fenoxaprop-P-ethyl at 0.069 kg at two leaf stage
K	Compound K at two leaf stage
L	Compound L pre-emergence
M	Compound M pre-emergence
N	Compound N at two leaf stage with adjuvant
O	None (duplicated)

**NOTE:** Herbicides K, L, M and N are under commercial development, composition undisclosed.

**Experimental diary:**

29-Aug-99 : B : : Ploughing started.  
30-Aug-99 : B : : Ploughing completed.  
31-Aug-99 : B : : Rotary harrowed.  
03-Sep-99 : B : : Rolled.  
14-Sep-99 : B : : Disced.  
16-Sep-99 : B : : Combination drilled, Consort, tr. Sibutol at 350 seeds/m<sup>2</sup> with the Nordsten drill.  
21-Sep-99 : T : D : Alpha Trifluralin 48 EC at 2.0 l in 220 l.  
          : T : L : Compound L at 4.0 l in 220 l.  
          : T : M : Compound M at 1.0 kg in 220 l.

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**Experimental diary:**

22-Sep-99 : B : : Genesis at 5.0 kg.  
: T : B,C,E,F,G,H : Avadex Excel 15G at 15.0 kg.  
15-Oct-99 : B : : Cyperkill 10 at 250 ml in 200 l.  
26-Oct-99 : T : A : Isoguard at 5.0 l in 220 l.  
: T : B : tm)Isoguard at 3.0 l in 220 l.  
: T : B : tm)Alpha Trifluralin 48 EC at 2.0 l in 220 l.  
: T : C : tm)Isoguard at 3.0 l in 220 l.  
: T : C : tm)Stomp 400 SC at 3.3 l in 220 l.  
: T : D,E : tm)Lexus 50 DF at 20 g in 220 l.  
: T : D,E : tm)Stomp 400 SC at 3.3 l in 220 l.  
: T : F : tm)Lexus 50 DF at 20 g in 220 l.  
: T : F : tm)Alpha Trifluralin 48 EC at 2.0 l in 220 l.  
15-Nov-99 : T : G : tm)Hawk at 2.5 l in 220 l.  
: T : G : tm)Actipron at 1.1 l in 220 l.  
: T : H : tm)Hawk at 2.5 l in 220 l.  
: T : H : tm)Actipron at 1.1 l in 220 l.  
: T : H : tm)Lexus 50 DF at 20 g in 220 l.  
: T : J : Cheetah Super at 1.25 l in 220 l.  
: T : K : tm)Compound K in 220 l.  
: T : N : tm)Compound N in 220 l.  
: T : N : tm)Agral at 0.22 l in 220 l.  
31-Mar-00 : B : : Avenge 2 at 3.3 l in 200 l.  
18-Apr-00 : B : : 34.5% N at 580 kg.  
29-Apr-00 : B : : Landmark at 0.5 l in 200 l.  
12-May-00 : B : : tm)Ally at 30 g in 200 l.  
: B : : tm)Starane 2 at 0.5 l in 200 l.  
20-May-00 : B : : Landmark at 1.0 l in 100 l.  
15-Aug-00 : B : : Combine harvested.

Previous crops: W. wheat 1998 and 1999.

**NOTE:** Black-grass populations were assessed in March and heads counted in June.

00/R/WW/6

GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

HERBCIDE	
A	4.93
B	7.47
C	7.50
D	7.26
E	7.92
F	7.20
G	7.53
H	7.41
J	4.87
K	7.66
L	6.63
M	3.73
N	5.41
O	3.72
Mean	6.20

\*\*\* Standard errors of differences of means \*\*\*

HERBCIDE	
0.566	min.rep
0.490	max-min

HERBCIDE  
max-min 0 v any of the remainder  
min.rep Any of the remainder

\*\*\*\*\* Stratum standard errors and coefficients of variation \*\*\*\*\*

Stratum	d.f.	s.e.	cv%
BLOCK.WP	43	0.800	12.9
GRAIN MEAN DM%	85.8		
PLOT AREA HARVESTED	0.00230		