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

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96/R/WW/6

WINTER WHEAT

HERBICIDE RESISTANT BLACK-GRASS

Object: To evaluate the efficacy of different herbicides on a herbicide-resistant black-grass population and to determine any changes in the degree of resistance in the progeny of surviving plants - Claycroft.

Sponsor: S.R. Moss.

Design: 4 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):
1	None (duplicated)
3	Isoproturon at 2.5 kg at two leaf stage
4	Tri-allate at 2.24 kg pre-emergence, plus isoproturon at 2.5 kg at two leaf stage
5	Trifluralin at 0.96 kg pre-emergence, plus isoproturon at 2.5 kg at two leaf stage
6	Pendimethalin at 2.0 kg pre-emergence, plus isoproturon at 2.5 kg at two leaf stage
7	Tri-allate at 2.24 kg plus trifluralin at 0.96 kg pre-emergence, plus isoproturon at 2.5 kg at two leaf stage
8	Tri-allate at 2.24 kg plus trifluralin at 0.96 kg pre-emergence, isoproturon at 2.5 kg at two leaf stage and at 2.1 kg at one tiller stage
9	Tri-allate at 2.24 kg plus trifluralin at 0.96 kg pre-emergence, isoproturon at 2.5 kg at two leaf stage and fenoxaprop-P-ethyl at 0.069 kg at one tiller stage
10	Tri-allate at 2.24 kg plus trifluralin at 0.96 kg pre-emergence, isoproturon at 2.5 kg at two leaf stage clodinafop-propargyl at 0.06 kg at one tiller stage
11	Tri-allate at 2.24 kg plus trifluralin at 0.96 kg pre-emergence, isoproturon at 1.5 kg plus simazine at 0.25 kg at two leaf stage
12	Fenoxaprop-P-ethyl at 0.069 kg at two leaf stage
13	Fenoxaprop-P-ethyl at 0.069 kg at one tiller stage
14	Clodinafop-propargyl at 0.06 kg at two leaf stage
15	Clodinafop-propargyl at 0.06 kg at one tiller stage

Experimental diary:

- 20-Sep-95 : B : Ploughed and furrow pressed.
- 22-Sep-95 : B : Rolled.
- 10-Oct-95 : B : Gramoxone 100 at 3.0 l in 260 l.
- 12-Oct-95 : B : Rotary harrowed.

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Experimental diary:

- 13-Oct-95 : B : Rotary harrowed Mercia, dressed Sibutol, drilled at 380 seeds per m².
- 17-Oct-95 : B : Draza at 5.5 kg.
- 18-Oct-95 : T : **HERBCIDE** 5, 7, 8, 9, 10, 11: Portman Trifluralin at 2.0 l in 220 l.
: T : **HERBCIDE** 6: Stomp 400 SC at 5.0 l in 220 l.
- 19-Oct-95 : T : **HERBCIDE** 4, 7, 8, 9, 10, 11: Avadex BW Granular at 22.4 kg.
- 10-Jan-96 : T : **HERBCIDE** 11: Atlas Simazine at 0.5 l with Stefes IPU at 3.0 l in 220 l.
: T : **HERBCIDE** 12: Cheetah Super at 1.25 l in 220 l.
: T : **HERBCIDE** 3, 4, 5, 6, 7, 8, 9, 10: Stefes IPU at 5.0 l in 220 l.
: T : **HERBCIDE** 14: Topik at 0.25 l in 220 l.
- 02-Apr-96 : T : **HERBCIDE** 8: Stefes IPU at 4.2 l in 220 l.
: T : **HERBCIDE** 9, 13: Cheetah Super at 1.25 l in 220 l.
: T : **HERBCIDE** 10, 15: Topik at 0.25 l in 220 l.
- 18-Apr-96 : B : 34.5% N at 586 kg.
- 12-Jun-96 : B : Monicle at 1.0 l in 300 l.
- 20-Aug-96 : B : Combine harvested.

Previous crops: W. wheat 1994 and 1995.

NOTE: Black-grass and wheat plants were counted in December. Black-grass heads were counted in June.

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GRAIN TONNES/HECTARE

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

HERBCIDE

1	5.17
3	7.03
4	7.48
5	7.54
6	7.33
7	7.19
8	7.19
9	7.01
10	7.25
11	6.99
12	6.13
13	5.78
14	6.99
15	6.15

Mean 6.69

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

HERBCIDE

0.256 min.rep
0.222 max-min

HERBCIDE

max-min 1 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	0.362	5.4
GRAIN MEAN DM%	88.2		
PLOT AREA HARVESTED	0.00219		