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## Yields of the Field Experiments 1988

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### **88/R/M/1 and 88/W/M/1 Inputs for Winter Cereals - W. Triticale, Wheat, Barley, Rye - Mixed Crops**

#### **Rothamsted Research**

Rothamsted Research (1989) *88/R/M/1 and 88/W/M/1 Inputs for Winter Cereals - W. Triticale, Wheat, Barley, Rye - Mixed Crops* ; Yields Of The Field Experiments 1988, pp 253 - 255 - DOI: <https://doi.org/10.23637/ERADOC-1-43>

88/R/M/1 and 88/W/M/1

MIXED 1

INPUTS FOR WINTER CEREALS

**Object:** To compare amounts of disease and the yield of triticale with those of w. wheat, w. barley and w. rye on two contrasted sites each given contrasted amounts of agrochemicals - Rothamsted Highfield VI (R) Woburn Far Field II (W).

**Sponsors:** R.J. Gutteridge, D. Hornby, R.D. Prew (R), P.R. Scott, W. Hollins, R.L. Gregory (I.P.S.R., Cambridge).

**Design:** 3 randomised blocks of 10 plots.

**Whole plot dimensions:** 3.0 x 10.0 (R), 4.0 x 10.0 (W).

**Treatments:** All combinations of :-

1. CROP VAR	Crop and variety:	(R)	(W)
B PANDA	W. barley, Panda sown at	200 kg,	200 kg
R DOMINT	W. rye, Dominant sown at	120 kg,	140 kg
T LASKO	W. triticale, Lasko sown at	180 kg,	180 kg
T STATUS	W. triticale, Status sown at	130 kg,	140 kg
W AVALON	W. wheat, Avalon sown at	180 kg,	190 kg
2. INPUT	Inputs of agrochemicals, in addition to basals:		
LARGE	High input, 40 kg N early plus 160 kg N later (R) and (W). Prochloraz + carbendazim + tridemorph (April) (R) and (W). Fenpropimorph + chlorothalonil (May) (R) Propiconazole + tridemorph (May) (W) Propiconazole + carbendazim (June) (W)		
SMALL	Low input, 120 kg N in early April. No fungicides or summer insecticides.		

**NOTES:** (1) Treatments were applied as follows:

Highfield (R): N treatments: 23 Feb, 1988 and 5 Apr.  
Prochloraz at 0.40 kg, carbendazim at 0.15 kg with tridemorph at 0.52 kg in 220 l: 26 Apr. Fenpropimorph at 0.75 kg with chlorothalonil at 1.0 kg in 220 l: 25 May.  
Far Field II (W): N treatments: 3 Mar, 1988 and 13 Apr.  
Prochloraz at 0.40 kg, carbendazim at 0.15 kg with tridemorph at 0.52 kg in 220 l: 26 Apr. Propiconazole at 0.12 kg and tridemorph at 0.25 kg in 220 l: 23 May.  
Propiconazole at 0.12 kg with carbendazim at 0.15 kg: 18 June.

(2) The R DOMINT and the T STATUS plots at Rothamsted failed and were cultivated and fallowed in early May 1988.

88/R/M/1 and 88/W/M/1

**Basal applications:**

Highfield VI (R): Manures: Chalk at 5.0 t. Weedkillers: Glyphosate at 0.27 kg in 200 l. Diclofop-methyl at 0.95 kg in 200 l. Fluroxypyr at 0.20 kg with metsulfuron-methyl at 0.006 kg in 200 l. Insecticide: Fonofos at 1.4 kg in 200 l.  
 Far Field II (W): Weedkillers: Isoxaben at 0.12 kg in 200 l. Diclofop-methyl at 0.57 kg in 200 l. Insecticide: Fonofos at 1.4 kg in 200 l.

**Cultivations, etc.:-**

Highfield VI (R): Chalk applied: 16 Sept, 1987. Glyphosate applied: 29 Sept. Ploughed: 2 Oct. Rotary harrowed: 5 Oct. Rotary harrowed, seed sown, harrowed: 6 Oct. Diclofop-methyl applied: 18 Nov. Insecticide applied: 14 Jan, 1988. Fluroxypyr and metsulfuron-methyl applied: 25 Apr. Combine harvested: 4 Aug (barley), 23 Aug (wheat), 26 Aug (triticale). Previous crops: W. wheat 1986 and 1987.  
 Far Field II (W): Ploughed: 21 Sept, 1987. Rotary cultivated with crumbler attached, seed sown: 1 Oct. Harrowed and rolled: 2 Oct. Isoxaben applied: 23 Oct. Diclofop-methyl applied: 24 Oct. Insecticide applied: 12 Jan, 1988. Combine harvested: 3 Aug (barley) 25 Aug (other cereals). Previous crops: W. wheat 1986 and 1987.

**88/R/M/1 W.BARLEY, W.TRITICALE, W.WHEAT**

**GRAIN TONNES/HECTARE**

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

INPUT CROP VAR	LARGE	SMALL	Mean
B PANDA	8.40	6.44	7.42
T LASKO	8.27	6.18	7.22
W AVALON	6.88	5.87	6.37
Mean	7.85	6.16	7.01

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

CROP VAR	INPUT	CROP VAR INPUT
0.458	0.374	0.647

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	10	0.793	11.3
GRAIN MEAN DM%	81.9		
PLOT AREA HARVESTED	0.00272		

88/W/M/1 W.BARLEY, W.TRITICALE, W.WHEAT

GRAIN TONNES/HECTARE

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

INPUT	LARGE	SMALL	Mean
CROP VAR			
B PANDA	6.99	4.52	5.76
R DOMINT	8.15	7.09	7.62
T LASKO	3.90	3.80	3.85
T STATUS	5.22	2.95	4.09
W AVALON	4.26	2.77	3.52
Mean	5.71	4.23	4.97

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

CROP VAR	INPUT	CROP VAR
		INPUT
0.354	0.224	0.500

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	18	0.613	12.3
GRAIN MEAN DM%	81.3		
PLOT AREA HARVESTED	0.00271		