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Yields of the Field Experiments 1995



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Rothamsted Research

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95/W/CS/440

TAKE-ALL CONTROL

Object: To test the efficacy of seed treatments for the control of take-all (Gaeumannomyces graminis) at various rates of nitrogen fertilizer - Woburn, Stackyard III.

Sponsors: G.L. Bateman, J.F. Jenkyn, R.J. Gutteridge.

Design: 8 blocks of 3 plots split into 3 sub-plots.

Whole plot dimensions: 3.0×46.0 . Sub-plot dimensions: 3.0×15.0 .

Treatments: All combinations of:-

Whole plots

1. SEED TRT Seed treatment:

UT Untreated

BY Fuberidazole + triadimenol

NT New treatment

NOTE: NT is under commercial development, composition undisclosed.

Sub-plots

2. N RATE Nitrogen fertilizer (kg N) as 27% N:

	Early	Later
N1	0	80
N2	30	50
N3	30	130

Experimental diary:

08-Sep-94 : B : PK as (0:20:32) at 781 kg.

26-Sep-94 : B : Barclay Gallup at 4.0 1 in 200 1.

06-Oct-94 : B : Ploughed.

17-Oct-94 : B : Rotary harrowed, Hussar drilled at 325 seeds per m², rolled.

28-Nov-94 : B : Panther at 2.0 1 with Decis at 200 ml in 200 1.

06-Mar-95 : T : N RATE N2, N3: 27% N at 111 kg.

26-Apr-95 : T : N RATE N1: 27% N at 296 kg, N2 at 185 kg and N3 at 481 kg.

02-May-95 : B : Halo at 2.0 1 in 200 1.

01-Jun-95 : B : Cyclone at 1.0 1 with Mallard 750 EC at 0.3 1 in 200 1.

29-Jun-95 : B : Pirimicarb 50 DG at 280 g in 300 1.

05-Aug-95 : B : Combine harvested.

NOTE: Plant establishment was assessed in autumn and spring. Plant samples were taken in November, April and June to assess take-all infection.

95/W/CS/440

GRAIN TONNES/HECTARE

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

N RATE SEED TRT	N1	N2	N3	Mean
UT	2.36	2.95	3.71	3.01
BY	2.29	3.22	3.25	2.92
NT	2.68	3.91	4.29	3.63
Mean	2.44	3.36	3.75	3.18

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

	SEED TRT	N RATE	SEED TRT	
			N RATE	
	0.318	0.197	0.422	
Except when	comparing means	with the same	level(s) of	
SEED TRT			0.341	

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

Stratum	d.f.	s.e.	CV%
BLOCK.WP	14	0.636	20.0
BLOCK.WP.SP	42	0.682	21.4

GRAIN MEAN DM% 89.9

SUB-PLOT AREA HARVESTED 0.00326