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## Yields of the Field Experiments 1998

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### 98/R/CS/483 Severe Take-all in Wheat - W. Wheat

#### Rothamsted Research

Rothamsted Research (1999) *98/R/CS/483 Severe Take-all in Wheat - W. Wheat* ; Yields Of The Field Experiments 1998, pp 108 - 109 - DOI: <https://doi.org/10.23637/ERADOC-1-52>

98/R/CS/483

**SEVERE TAKE-ALL IN WHEAT**

**Object:** To create severe take-all (*Gaeumannomyces graminis*) in winter wheat by applying inoculum artificially to spring wheat and then test seed dressings on w. wheat - Summerdells I.

**Sponsors:** G.L. Bateman, R.J. Gutteridge.

The second year, w. wheat.

For previous year see 97/R/CS/483

**Design:** 4 randomised blocks of 2 x 7 plots.

**Plot dimensions:** 3.0 x 10.0.

**Treatments:-**

All combinations of:

1. **INOCULTN**                      Inoculum applied in 1997:
  - None
  - TA                                    Take-all inoculum
  
2. **SEED TRT**                      Seed dressing in 1998:
  - None
  - R1                                    CR 21529 at 200 ml per 100 kg
  - R2                                    CR 21529 at 300 ml per 100 kg
  - R3                                    CR 21529 at 450 ml per 100 kg
  - NR1                                  CR 21529 (Non-P) at 200 ml per 100 kg
  - NR3                                  CR 21529 (Non-P) at 450 ml per 100 kg
  - B                                      Baytan Flowable at 200 ml per 100 kg

**NOTE:** Treatments CR 21529 and CR 21529 (Non-P) are under commercial development, composition disclosed in confidence.

**Experimental diary:**

- 10-Sep-97 : B : PK as (0:20:32) at 1250 kg.
- 01-Oct-97 : B : Heavy spring-tine cultivated twice.
- 01-Oct-97 : T : Rotary harrowed, Hereward, dressed as treatment, drilled at 400 seeds per m<sup>2</sup>.
- 03-Oct-97 : B : Rolled.
- 16-Oct-97 : B : Draza at 5.5 kg.
- 13-Jan-98 : B : Unite A at 0.125 l with Unite B at 1.0 l and LI-700 at 1.0 l in 200 l.
- 17-Feb-98 : B : 34.5% N at 120 kg.
- 29-Apr-98 : B : 34.5% N at 460 kg.
- 18-Aug-98 : B : Combine harvested.

**NOTE:** Plant populations, growth and take-all were assessed in March. Take-all and stem base diseases were assessed in June.

98/R/CS/483

GRAIN TONNES/HECTARE

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

INOCULTN SEED TRT	-	TA	Mean
-	5.78	5.82	5.80
R1	6.03	6.25	6.14
R2	6.14	6.58	6.36
R3	5.59	6.67	6.13
NR1	6.75	5.68	6.21
NR3	6.22	6.70	6.46
B	5.68	6.29	5.99
Mean	6.03	6.28	6.16

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

INOCULTN SEED TRT	SEED TRT	INOCULTN SEED TRT
0.227	0.425	0.601

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	39	0.850	13.8
GRAIN MEAN DM%	88.0		
PLOT AREA HARVESTED	0.00228		