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Yields of the Field Experiments 1993

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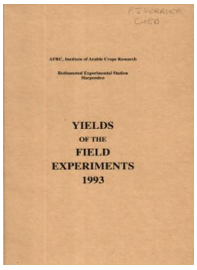

93/R/BW/2 Sowing Dates, Aphids and Bydv - W. Barley

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93/R/BW/2

WINTER BARLEY

SOWING DATES, APHIDS AND BYDV

Object: To study the relationship of aphid numbers in suction trap samples to crop populations and the incidence of barley yellow dwarf virus (BYDV) on winter barley sown on a range of dates - Highfield IV.

Sponsors: G.M. Tatchell, R.T. Plumb.

Design: 4 randomised blocks of 10 plots.

Whole plot dimensions: 3.0 x 31.0.

Treatments: All combinations of:-

1. **SOWDATE** Dates of sowing:

ERLYSEPT	Early September
MIDSEPT	Mid September
LATESEPT	Late September
ERLYOCT	Early October
LATEOCT	Late October

2. **APHICIDE** Aphicide in autumn:

NONE	None
CYPERMET	Cypermethrin

Experimental diary:

28-Jul-92 : B : Disced.
19-Aug-92 : B : Sting CT at 1.5 l in 200 l.
02-Sep-92 : B : Ploughed.
07-Sep-92 : B : Rolled.
08-Sep-92 : **T** : **SOWDATE** ERLYSEPT: Rotary harrowed, Magie, dressed Cerevax, drilled at 350 seeds per square metre.
15-Sep-92 : **T** : **SOWDATE** MIDSEPT: Rotary harrowed, Magie, dressed Cerevax, drilled at 350 seeds per square metre.
28-Sep-92 : **T** : **SOWDATE** LATESEPT: Rotary harrowed twice, Magie, dressed Cerevax, drilled at 350 seeds per square metre.
12-Oct-92 : **T** : **SOWDATE** ERLYOCT: Rotary harrowed, Magie, dressed Cerevax, drilled at 350 seeds per square metre.
30-Oct-92 : **T** : **SOWDATE** LATEOCT: Spring-tine cultivated.
31-Oct-92 : **T** : **SOWDATE** LATEOCT: Rotary harrowed, Magie, dressed Cerevax, drilled at 350 seeds per square metre.
20-Nov-92 : **T** : **APHICIDE** CYPERMET (except **SOWDATE** LATEOCT plots): Ripcord at 250 ml in 220 l.
10-Dec-92 : **T** : **APHICIDE** CYPERMET (**SOWDATE** LATEOCT plots only): Ripcord at 250 ml in 220 l.
05-Mar-93 : B : 34.5% N at 120 kg.
11-Mar-93 : B : Tigress at 2.5 l in 200 l.

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93/R/BW/2

Experimental diary:
14-Apr-93 : B : 34.5% N at 370 kg.
21-Apr-93 : B : Ally at 30 g and Starane 2 at 1.0 l in 200 l.
18-May-93 : B : Calirus at 2.0 kg and Corbel at 0.50 l in 200 l.
02-Aug-93 : B : Combine harvested.

Previous crops: W. barley 1991 and 1992.

NOTE: Visual assessments were made for BYDV infection from late March to late May and leaf samples taken during March and April for subsequent enzyme-linked immunosorbent assay to determine levels of BYDV infection and isolates present. Numbers of ears, grains per ear and thousand grain weights were measured at harvest.

GRAIN TONNES/HECTARE

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

APHICIDE	NONE	CYPERMET	Mean
SOWDATE			
ERLYSEPT	4.98	5.57	5.28
MIDSEPT	5.14	5.53	5.33
LATESEPT	5.90	6.05	5.97
ERLYOCT	5.87	5.82	5.85
LATEOCT	5.67	5.55	5.61
Mean	5.51	5.70	5.61

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

SOWDATE	APHICIDE	SOWDATE APHICIDE
0.239	0.151	0.338

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	27	0.479	8.5

GRAIN MEAN DM% 86.0

PLOT AREA HARVESTED 0.00204

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