

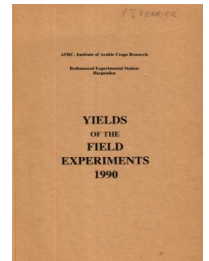
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90/R/B/3

SPRING BARLEY

SPRAY TIMINGS AND BYDV

Object: To investigate the optimum strategy for controlling barley yellow dwarf virus (BYDV) in spring barley in relation to sowing date, aphid immigration and subsequent population development - Long Hoos I/II.

Sponsors: N. Carter, R.T. Plumb.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 3.0 x 10.0.

Treatments:

S P DATE	Dates of sowing and of applying pirimicarb, at 0.14 kg in 300 l on each occasion:				
E 0	Sown 15 March, 1990 no pirimicarb				
E D1	"	"	"	pirimicarb applied	9 Apr
E D2	"	"	"	"	2 May
E D3	"	"	"	"	14 May
E D1 D2	"	"	"	"	9 Apr and 2 May
E D1 D3	"	"	"	"	9 Apr and 14 May
E D2 D3	"	"	"	"	2 May and 14 May
E D1D2D3	"	"	"	"	9 Apr, 2 May and 14 May
L 0	Sown 11 April, no pirimicarb				
L D2	"	"	"	pirimicarb applied	2 May
L D3	"	"	"	"	14 May
L D4	"	"	"	"	22 May
L D2 D3	"	"	"	"	2 May and 14 May
L D2 D4	"	"	"	"	2 May and 22 May
L D3 D4	"	"	"	"	14 May and 22 May
L D2D3D4	"	"	"	"	2 May, 14 May and 22 May

Basal applications: Manure: 'Nitram' at 350 kg. Weedkillers: Bromoxynil at 0.20 kg, ioxynil at 0.20 kg and mecoprop at 1.6 kg applied with the fungicide in 200 l. Fungicide: Fenpropimorph at 0.75 kg.

Seed: Klaxon, dressed triadimenol and fuberidazole, sown at 160 kg.

Cultivations, etc.:- Ploughed: 2 Nov, 1989. N applied: 13 Mar, 1990. Spring-tine cultivated: 14 Mar. Early-sown plots rotary harrowed, seed sown: 15 Mar. Late-sown plots rotary harrowed, seed sown: 11 Apr. Weedkillers with the fungicide applied: 14 May. Combine harvested: 14 Aug. Previous crops: S. beans 1988, potatoes 1989.

- NOTES:**
- (1) Aphids were sampled from early April until early July.
 - (2) Shoot samples were taken from some plots to identify and count shoot borers.
 - (3) BYDV was assessed visually on five occasions during May and June and leaves from some plots were tested by enzyme-linked immunosorbent assay to determine virus strains present.
 - (4) Components of yield were measured.

90/R/B/3

GRAIN TONNES/HECTARE

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

S	P	DATE	
E	0		5.98
E	D1		5.82
E	D2		5.78
E	D3		6.28
E	D1 D2		6.16
E	D1 D3		6.17
E	D2 D3		6.25
E	D1D2D3		6.18
L	0		4.51
L	D2		4.82
L	D3		5.00
L	D4		4.99
L	D2 D3		4.61
L	D2 D4		5.22
L	D3 D4		5.07
L	D2D3D4		5.37
	Mean		5.51

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

S	P	DATE
		0.401

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	0.491	8.9
GRAIN MEAN DM%	88.7		
PLOT AREA HARVESTED	0.00204		