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74/R/O/1 Sowing Dates, Aphids and Bydv - Winter Oats

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74/R/O/1

WINTER OATS

SOWING DATES, APHIDS AND BYDV

Object: To study the effects of dates of sowing and times of applying insecticides on the incidence of cereal aphids, barley yellow dwarf virus (BYDV) and yield of winter oats - Whittlocks.

Sponsors: R.T. Plumb, J.H. Stevenson.

Design: 3 randomised blocks of 19 plots.

Whole plot dimensions: 6.40 x 24.4. Area harvested: 0.00390.

Treatments: All combinations of:-

1. Sowing dates:	SOW DATE
27 September 1973	27 Sept
26 October 1973	26 Oct
22 November 1973	22 Nov
2. Autumn/winter insecticide	INSTCDE(1)
None	None
Phorate at 5.0 kg a.i. as granules to seedbed on 25 Sept, 25 Oct and 20 Nov, 1973, respectively	Phorate
Menazon, (0.7 l 'Saphicol' in 450 l) as foliar spray at 4-leaf stage applied to Sept sowing on 20 Nov and to Oct and Nov sowings on 30 Apr, 1974	Menazon
3. Spring insecticide	INSTCDE(2)
None	None
Menazon (0.7 l 'Saphicol' in 450 l) as foliar spray on 20 May	Menazon

Plus one extra treatment per block given dimethoate (0.8 l 'Rogor' in 450 l on 20 May) SOW DATE 27 Sept, INSTCDE(1) None, INSTCDE(2) Dimeth.

Basal applications: Manures: (0:20:20) at 310 kg, combine drilled. 'Nitro-Chalk' at 310 kg. Weedkiller: MCPA, mecoprop and dicamba ('Banlene Plus' at 5.6 l in 220 l).

Seed: Peniarth, sown at 190 kg.

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Cultivations, etc.:— Deep-tine cultivated twice: 19 and 20 Sept, 1973.
Disced: 24 Sept. Rotary harrowed for first sowing: 26 Sept.
Power harrowed for second sowing: 25 Oct. Power harrowed for
third sowing: 20 Nov. N applied: 19 Apr, 1974. Weedkiller
applied: 22 Apr. Combine harvested: 15 Aug. Previous crops:
Barley 1972 and 1973.

NOTE: Assessments of seedling emergence were made in autumn and spring.
Aphid counts were made on three occasions and virus assessed on
two occasions.

Standard error per plot.

Grain, tonnes/hectare: 0.325 or 4.6% (36 d.f.)

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TABLE OF MEANS

GRAIN: TONNES/HECTARE

	INSCTCDE(1)			INSCTCDE(2)		Mean
	None	Phorate	Menazon	None	Menazon	
SOW DATE						
27 Sept	6.73	6.94	6.84	6.78	6.89	6.84
26 Oct	7.02	7.30	6.95	7.17	7.01	7.09
22 Nov	7.42	7.43	7.54	7.53	7.39	7.46
		INSCTCDE(1)				
		None		7.09	7.02	7.06
		Phorate		7.30	7.15	7.23
		Menazon		7.09	7.12	7.11
Mean				7.16	7.10	7.13

INSCTCDE(1) INSCTCDE(2)	None			Phorate		Menazon	
	None	Menazon	Dimeth	None	Menazon	None	Menazon
SOW DATE							
27 Sept	6.74	6.72	7.26	6.79	7.09	6.81	6.87
26 Oct	7.09	6.96		7.57	7.03	6.86	7.04
22 Nov	7.45	7.39		7.53	7.34	7.62	7.46

STANDARD ERRORS OF DIFFERENCES

SOW DATE	INSCTCDE(1)	INSCTCDE(2)	SOW DATE	SOW DATE	INSCTCDE(1)
			INSCTCDE(1)	INSCTCDE(2)	INSCTCDE(2)
0.108	0.108	0.088	0.188	0.153	0.153

SOW DATE
INSCTCDE(1)
INSCTCDE(2)

0.265

Grand mean 7.14

Mean D.M. % 82.1