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## Yields of the Field Experiments 1974

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

74/R/O/1 *Sowing Dates, Aphids and Bydv - Winter Oats*, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 320 - 322 - DOI: <https://doi.org/10.23637/ERADOC-1-119>

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

Phorate

25 Sept, 25 Oct and 20 Nov, 1973, respectively

Menazon, (0.7 l 'Saphicol' in 450 l) as foliar spray

Menazon

at 4-leaf stage applied to Sept sowing on 20 Nov

and to Oct and Nov sowings on 30 Apr, 1974

### 3. Spring insecticide

INSTCDE(2)

None

None

Menazon (0.7 l 'Saphicol' in 450 l) as foliar spray

Menazon

on 20 May

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.

74/R/O/1

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.)

74/R/O/1

## TABLE OF MEANS

GRAIN: TONNES/HECTARE

|          | INSTCDE(1) |            |         | INSTCDE(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 |
|          |            | INSTCDE(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 |

| INSTCDE(1)<br>INSTCDE(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 | INSTCDE(1) | INSTCDE(2) | SOW DATE   | SOW DATE   | INSTCDE(1) |
|----------|------------|------------|------------|------------|------------|
|          | INSTCDE(1) | INSTCDE(2) | INSTCDE(1) | INSTCDE(2) | INSTCDE(2) |
| 0.108    | 0.108      | 0.088      | 0.188      | 0.153      | 0.153      |

SOW DATE  
INSTCDE(1)  
INSTCDE(2)

0.265

Grand mean 7.14

Mean D.M. % 82.1