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# Yields of the Field Experiments 1980



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# 80/R/WW/5 Winter Wheat Integrated Pest Control

## **Rothamsted Research**

Rothamsted Research (1981) 80/R/WW/5 Winter Wheat Integrated Pest Control; Yields Of The Field Experiments 1980, pp 234 - 235 - DOI: https://doi.org/10.23637/ERADOC-1-31

### 80/R/WW/5

#### WINTER WHEAT

#### INTEGRATED PEST CONTROL

Object: To study the effects of chemical and biological treatments on the incidence of pests and beneficial insects and on the yield of w. wheat - Stackyard.

Sponsors: W. Powell, R. Bardner, C.A. Edwards, G.J.W. Dean, A. Dewar, N. Wilding, J.R. Lofty, K.E. Fletcher, R.T. Plumb.

Design: 3 randomised blocks of 5 plots.

Whole plot dimensions: 19.2 x 13.7

Treatments:

TREATMNT

Chemical and biological treatments:

NONE

None

BENOMYL DIMETHOA PIRIMICA

ENTOMOPH

Benomylat 0.56 kg in 360 l on 8 May, 1980 Dimethoate at 0.34 l in 600 l on 11 June Pirimicarb at 0.14 kg in 600 l on 11 June Biological control of applies by the release

Biological control of aphids by the release of

86 Metopolophium dirhodum per square metre on 11 June and 15 Sitobion avenae per square metre on 12 June, both

species infected with Entomophthora aphidis.

Basal applications: Manures: (10:23:23) at 250 kg, combine drilled.
'Nitro-Chalk' at 560 kg. Weedkillers: Isoproturon at 2.1 kg with
mecoprop at 2.5 l in 220 l.

Seed: Flanders, not dressed insecticide, sown at 200 kg.

Cultivations, etc.:- Heavy spring-tine cultivated: 23 Aug, 1979. Ploughed: 13 Sept. Rotary harrowed: 4 Oct. Seed sown: 6 Oct. Weedkillers applied: 29 Feb, 1980. N applied: 8 Apr. Combine harvested: 20 Aug. Previous crops: S. wheat 1978, w. oats 1979.

NOTE: Ground surface insects were counted weekly between April and August and aerial insects weekly between May and July. Soil insects were counted in June. Aphid numbers, infection with Entomophthora and aphid parasite numbers were assessed in June and July.

80/R/WW/5

GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

TREATMNT NONE BENOMYL DIMETHOA PIRIMICA ENTOMOPH MEAN 8.24 8.53 8.54 8.61 7.89 8.36

\*\*\*\* STANDARD ERRORS OF DIFFERENCES OF MEANS \*\*\*\*

TABLE TREATMNT
SED 0.193

\*\*\*\*\* STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION \*\*\*\*\*

 STRATUM
 DF
 SE
 CV%

 BLOCK.WP
 8
 0.237
 2.8

GRAIN MEAN DM% 83.4

PLOT AREA HARVESTED 0.00293