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Yields of the Field Experiments 1982



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Rothamsted Research

Rothamsted Research (1983) 82/W/WW/4 Aphid Alarm Pheromone and Bydv - Winter Wheat; Yields Of The Field Experiments 1982, pp 234 - 235 - DOI: https://doi.org/10.23637/ERADOC-1-33

82/W/WW/4

WINTER WHEAT

APHID ALARM PHEROMONE AND BYDV

Object: To study the effects of insecticides and an alarm pheromone on aphids, barley yellow dwarf virus (BYDV) and the yield of w. wheat - Woburn Gt. Hill III.

Sponsors: D.C. Griffiths, R.T. Plumb, J.A. Pickett.

Design: 4 blocks of 5 plots.

Whole plot dimensions: 4.0 x 12.0.

Treatments:

TREATMNT Applica

Application of insecticides or alarm pheromone:

NONE

None (duplicated)

PHER AR

'ADD' (a derivative of beta-farnesene) repeated sprays

in autumn

PERMET A PHORA SD Permethrin at 0.05 kg as a spray on 6 Nov, 1981 Phorate as a seed dressing at 2 g per kg of seed

NOTE: 'ADD' was applied at 4.0 kg on 13 Oct, 1981, 6 Nov and 30 Nov and at 8.0 kg on 21 Oct.

Basal applications: Manures: (0:14:28) at 1000 kg. N at 30 kg and at 190 kg as 'Nitro-Chalk'. Weedkillers: Methabenzthiazuron at 1.6 kg in 280 l; isoproturon at 2.1 kg in 280 l. Fungicides: Prochloraz at 0.39 kg in 280 l; propiconazole at 0.12 kg in 280 l applied with the insecticide. Insecticide: Pirimicarb at 0.14 kg.

Seed: Aquila, sown at 190 kg.

Cultivations, etc.:- Straw burnt: 26 Aug, 1981. Disced: 27 Aug, 1 Sept. PK applied: 4 Sept. N applied: 17 Sept. Spring-tine cultivated: 18 Sept. Spring-tine cultivated with crumbler attached, seed sown: 22 Sept. Methabenzthiazuron applied: 25 Sept. N applied: 14 Apr, 1982. Isoproturon applied: 16 Apr. Prochloraz applied: 25 Apr. Propiconazole and insecticide applied: 14 June. Combine harvested: 30 July. Previous crops: Phaseolus 1980, w. wheat 1981.

NOTE: Numbers of soil fauna were estimated from pitfall traps; numbers of aphids were counted from October 1981 to May 1982 and virus assessments were made during the season.

82/W/WW/4

GRAIN TONNES/HECTARE

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

TREATMNT NONE PHER AR PERMET A PHORA SD MEAN 4.61 4.27 5.15 4.66 4.66

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

TABLE TREATMNT

SED 0.744 MIN REP 0.645 MAX-MIN

TREATMNT

MAX-MIN NONE V ANY OF THE REMAINDER

MIN REP ANY OF THE REMAINDER

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

STRATUM DF SE CV%

BLOCK.WP 13 1.052 22.6

GRAIN MEAN DM% 83.7

PLOT AREA HARVESTED 0.00247