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81/R/P/5 Alarm Pheromone Study - Potatoes

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81/R/P/5

POTATOES

ALARM PHEROMONE STUDY

Object: To study the effects of an aphid alarm pheromone on the effectiveness of a contact aphicide - Geescroft.

Sponsors: D.C. Griffiths, J.A. Pickett.

Design: 4 randomised blocks of 6 plots.

Whole plot dimensions: 2.25 x 6.10.

Treatments:

TREATMNT	Aphicide and pheromone treatments:
NONE	None
PHEROMON	Aphid alarm pheromone (beta farnesene at 0.3 g)
PERMETH	Permethrin at 0.10 kg
PHER + PER	Aphid alarm pheromone plus permethrin
DEMETON	Demeton-s-methyl at 0.25 kg
PIRIMICA	Pirimicarb at 0.15 kg

NOTE: Treatments were applied on 23 June, insecticide sprays in 340 l of water, beta farnesene in nitrogen gas at 5000 l.

Basal applications: Manures: (10:10:15 + 4.5 Mg) at 1960 kg. Weedkillers: Zinuron at 1.1 l with paraquat at 0.6 kg ion in 250 l. Fungicide: Mancozeb at 1.4 kg in 250 l applied six times. Desiccant: BOV at 170 l.

Seed: King Edward.

Cultivations, etc.: Ploughed: 20 Nov, 1980. NPK applied: 16 Apr, 1981. Spike rotary cultivated, seed sown: 7 May. Weedkillers applied: 27 May. Fungicide applied: 22 June, 1 July, 13 July, 27 July, 11 Aug and 24 Aug. Haulm mechanically destroyed: 11 Sept. Desiccant applied: 25 Sept. Lifted: 7 Oct. Previous crops: S. barley 1979, w. beans 1980.

NOTE: Aphids were counted three times between late June and late July.

81/R/P/5

TOTAL TUBERS TONNES/HECTARE

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

TREATMNT	NONE	PHEROMON	PERMETH	PHER+PER	DEMETON	PIRIMICA	MEAN
	37.1	37.8	36.3	41.2	40.4	38.6	38.6

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

TABLE	TREATMNT
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SED	2.57

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

STRATUM	DF	SE	CV%
BLOCK.WP	15	3.63	9.4

PERCENTAGE WARE 3.81 CM (1.5 INCH) RIDDLE

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

TREATMNT	NONE	PHEROMON	PERMETH	PHER+PER	DEMETON	PIRIMICA	MEAN
	87.4	89.2	86.9	88.6	89.9	88.9	88.5

PLOT AREA HARVESTED 0.00091