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85/R/B/3 Stubble Treatment and Bydv - W. Barley

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85/R/B/3

WINTER BARLEY

STUBBLE TREATMENT AND BYDV

Object: To study the effects of herbicides and insecticides applied to stubble at different times before ploughing on the incidence of BYDV - Scout N.

Sponsor: R.T. Plumb.

Design: 4 randomised blocks of 12 plots.

Whole plot dimensions: 3.0 x 10.0.

Treatments: All combinations of:-

1. SPRAYS Sprays of herbicides and insecticides:

GLYPHOSA	Glyphosate at 1.4 kg
PARAQUAT	Paraquat at 0.60 kg ion

2. TIMES Times of applying sprays (ploughed 12 September):

20 AUG	3 weeks before ploughing
3 SEPT	1 week before ploughing
11 SEPT	1 day before ploughing

Plus four extra treatments:

EXTRA

NONE	No sprays (triplicated)
CY 3 SEP	Cypermethrin applied on 3 September at 0.025 kg
DI 3 SEP	Dimethoate applied on 3 September at 0.34 kg
PI 3 SEP	Pirimicarb applied on 3 September at 0.14 kg

NOTE: Treatment sprays were applied in 500 l except for glyphosate on 20 Aug which was in 200 l.

Basal applications: Manures: (0:18:36) at 340 kg. 'Nitro-Chalk' (26% N) at 620 kg. Weedkillers: Isoproturon at 1.5 kg, clopyralid at 0.05 kg with bromoxynil octanoate at 0.24 kg and mecoprop (as 'CMPP' at 3.0 l) in 200 l with the fungicides. Fungicides: Prochloraz at 0.40 kg and carbendazim at 0.15 kg. Insecticide: Cypermethrin at 0.025 kg in 250 l. Desiccant: Diquat at 0.80 kg ion with a wetting agent ('Agris' at 0.5 l) in 500 l.

Seed: Panda, sown at 150 kg.

Cultivations, etc.: Heavy spring-tine cultivated: 31 July, 1984. Disced: 2 Aug. PK applied: 8 Aug. Ploughed: 12 Sept. Disced: 14 Sept. Rotary harrowed, seed sown: 18 Sept. Insecticide applied: 31 Oct. N applied, weedkillers and fungicides applied: 9 Apr, 1985. Desiccant with wetting agent applied: 24 July. Combine harvested: 6 Aug. Previous crops: W. barley 1983 and 1984.

85/R/B/3

NOTE: Barley yellow dwarf virus and aphid incidence were recorded on volunteers during August and September, 1984. Emergence counts and aphid counts were made in October. Barley yellow dwarf virus incidence was recorded in May 1985.

GRAIN TONNES/HECTARE

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

SPRAYS TIMES	GLYPHOSA	PARAQUAT	MEAN
20 AUG	7.64	6.97	7.30
3 SEPT	5.89	6.38	6.13
11 SEPT	6.23	6.05	6.14
MEAN	6.59	6.47	6.53

EXTRA	NONE	CY 3 SEP	DI 3 SEP	PI 3 SEP	MEAN
	5.75	5.34	6.68	6.10	5.89

GRAND MEAN 6.21

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

TABLE	SPRAYS	TIMES	SPRAYS TIMES	EXTRA
SED	0.353	0.432	0.611	0.611 MIN REP 0.499 MIN-MAX

EXTRA
MIN-MAX 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	35	0.864	13.9

GRAIN MEAN DM% 80.0

PLOT AREA HARVESTED 0.00204