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78/R/B/18 Mixed Varieties and Mildew - Barley

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78/R/B/18

SPRING BARLEY

MIXED VARIETIES AND MILDEW

Object: To study the effects of variety mixtures and different fungicides on mildew development and yield - Summerdells II.

Sponsor: J.F. Jenkyn.

Design: 4 randomised blocks of 9 plots.

Whole plot dimensions: 6.40 x 9.14.

Treatments:

VAR FUNG	Varieties and fungicides:
H O	Hassan, no fungicide
M O	Midas, no fungicide
W O	Wing, no fungicide
H T	Hassan, seed treated triforine
W E	Wing, seed treated ethirimol
HO MO WO	Mixture of the three varieties, no fungicide
HO MO WE	Mixture of the three varieties. Ethirimol seed treatment to Wing only
HT MO WO	Mixture of the three varieties. Triforine seed treatment to Hassan only
HT MO WE	Mixture of the three varieties. Triforine seed treatment to Hassan, none to Mazurka, ethirimol to Wing

NOTE: All plots were separated at their sides by 10.7 m of variety Proctor, seed dressed ethirimol, and at their ends by 12 m of variety Proctor, seed dressed organo-mercury. All the Proctor was sprayed with tridemorph at 0.53 kg in 220 l on 14 June, 1978. Yields were taken from the Proctor adjacent to the sides of plots, and used for covariance analysis.

Basal applications: Manures: (20:14:14) at 440 kg, combine drilled. Weedkillers: Dicamba with mecoprop and MCPA ('Banlene Plus' at 4.9 l in 220 l).

Seed: All seed sown at 160 kg except internal headlands sown at 78 kg.

Cultivations, etc.: - Ploughed: 23 Nov, 1977. Spring-tine cultivated twice: 15 Mar, 1978. Heavy spring-tine cultivated, rotary harrowed, seed sown on plots (and covariate plots): 10 Apr. Seed sown on headlands and surrounds: 17 Apr. Weedkiller applied: 24 May. Combine harvested: 9 Sept. Previous crops: W. oats 1976, s. wheat 1977.

NOTE: Seedling emergence counts were made. Mildew was assessed on three occasions.

78/R/B/18

GRAIN TONNES/HECTARE

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

VAR FUNG	
H O	4.44
M O	5.09
W O	4.86
H T	4.60
W E	4.82
HO MO WO	4.83
HO MO WE	5.18
HT MO WO	4.87
HT MO WE	4.92
MEAN	4.85

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

TABLE	VAR FUNG
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SED	0.215

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

STRATUM	DF	SE	CV%
BLOCK.WP	23	0.300	6.2

GRAIN MEAN DM% 80.8

PLOT AREA HARVESTED 0.00260