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79/R/B/9 Sowing Dates and Pathogen Control - Barley

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79/R/B/9

SPRING BARLEY

SOWING DATES AND PATHOGEN CONTROL

Object: To study the effects of aphid, virus and fungus control on pathogens and yield of barley sown on two dates - Claycroft.

Sponsors: J.F. Jenkyn, R.T. Plumb.

Design: Half replicate in 2 blocks of 16 plots.

Whole plot dimensions: 6.40 x 18.3.

Treatments: Combinations of:-

- | | |
|----------------|---|
| 1. SOW DATE | Dates of sowing: |
| 17 APR | 17 April, 1979 |
| 8 MAY | 8 May |
| 2. FUNGCIDE(1) | Fungicidal seed dressing: |
| NONE | None |
| ETHIRIMO | Ethirimol |
| 3. FUNGCIDE(2) | Foliar fungicide: |
| NONE | None |
| TRIDEMOR | Tridemorph at 0.53 kg in 220 l on 18 June, 1979 |
| 4. APHCIDE(1) | Aphicide to seedbed: |
| NONE | None |
| PHORATE | Phorate at 5.0 kg |
| 5. APHCIDE(2) | Foliar aphicide: |
| NONE | None |
| DIMETH | Dimethoate at 0.084 kg in 220 l on 5 June, 1979 |
| 6. APHCIDE(3) | Foliar aphicide: |
| NONE | None |
| DIMETH | Dimethoate at 0.34 kg in 220 l on 11 July, 1979 |

Basal applications: Manures: (20:14:14) at 440 kg, combine drilled. Weedkillers: Bromoxynil and ioxynil (as 'Oxytril CM' at 2.1 kg) and mecoprop at 1.7 kg in 220 l.

Seed: Wing, sown at 160 kg.

Cultivations, etc.: Subsoiled, tines 100 cm apart and 45 cm deep: 31 Oct, 1978. Ploughed: 2 Nov. Spring-tine cultivated: 16 Apr, 1979. Early-sown plots power harrowed, seed sown: 17 Apr. Late-sown plots power harrowed, seed sown: 8 May. Weedkillers applied: 1 June. Early-sown plots combine harvested: 26 Aug. Late-sown plots combine harvested: 5 Sept. Previous cropping: Beans 1977, wheat 1978.

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NOTE: Seedling emergence, leaf diseases, numbers of grains per ear and plant populations were assessed.

GRAIN TONNES/HECTARE

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

FUNGCIDE(1)	NONE	ETHIRIMO	MEAN
SOW DATE			
17 APR	5.47	5.66	5.57
8 MAY	4.58	4.63	4.61
MEAN	5.02	5.15	5.09
FUNGCIDE(2)	NONE	TRIDEMOR	MEAN
SOW DATE			
17 APR	5.53	5.60	5.57
8 MAY	4.25	4.97	4.61
MEAN	4.89	5.28	5.09
FUNGCIDE(2)	NONE	TRIDEMOR	MEAN
FUNGCIDE(1)			
NONE	4.85	5.19	5.02
ETHIRIMO	4.93	5.37	5.15
MEAN	4.89	5.28	5.09
APHICIDE(1)	NONE	PHORATE	MEAN
SOW DATE			
17 APR	5.50	5.64	5.57
8 MAY	4.76	4.46	4.61
MEAN	5.13	5.05	5.09
APHICIDE(1)	NONE	PHORATE	MEAN
FUNGCIDE(1)			
NONE	4.91	5.14	5.02
ETHIRIMO	5.35	4.95	5.15
MEAN	5.13	5.05	5.09
APHICIDE(1)	NONE	PHORATE	MEAN
FUNGCIDE(2)			
NONE	4.93	4.85	4.89
TRIDEMOR	5.32	5.24	5.28
MEAN	5.13	5.05	5.09
APHICIDE(2)	NONE	DIMETH	MEAN
SOW DATE			
17 APR	5.65	5.48	5.57
8 MAY	4.71	4.50	4.61
MEAN	5.18	4.99	5.09

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GRAIN TONNES/HECTARE

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

APHICIDE(2)	NONE	DIMETH	MEAN
FUNGICIDE(1)			
NONE	5.18	4.87	5.02
ETHIRIMO	5.18	5.12	5.15
MEAN	5.18	4.99	5.09

APHICIDE(2)	NONE	DIMETH	MEAN
FUNGICIDE(2)			
NONE	5.01	4.77	4.89
TRIDEMOR	5.35	5.21	5.28
MEAN	5.18	4.99	5.09

APHICIDE(2)	NONE	DIMETH	MEAN
APHICIDE(1)			
NONE	5.33	4.93	5.13
PHORATE	5.04	5.05	5.05
MEAN	5.18	4.99	5.09

APHICIDE(3)	NONE	DIMETH	MEAN
SOW DATE			
17 APR	5.48	5.65	5.57
8 MAY	4.43	4.79	4.61
MEAN	4.95	5.22	5.09

APHICIDE(3)	NONE	DIMETH	MEAN
FUNGICIDE(1)			
NONE	4.90	5.15	5.02
ETHIRIMO	5.01	5.29	5.15
MEAN	4.95	5.22	5.09

APHICIDE(3)	NONE	DIMETH	MEAN
FUNGICIDE(2)			
NONE	4.78	5.00	4.89
TRIDEMOR	5.13	5.43	5.28
MEAN	4.95	5.22	5.09

APHICIDE(3)	NONE	DIMETH	MEAN
APHICIDE(1)			
NONE	5.09	5.17	5.13
PHORATE	4.82	5.27	5.05
MEAN	4.95	5.22	5.09

APHICIDE(3)	NONE	DIMETH	MEAN
APHICIDE(2)			
NONE	5.04	5.32	5.18
DIMETH	4.87	5.12	4.99
MEAN	4.95	5.22	5.09

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GRAIN TONNES/HECTARE

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

TABLE	SOW DATE	FUNGICIDE(1)	FUNGICIDE(2)	APHICIDE(1)
SED	0.151	0.151	0.151	0.151

TABLE	APHICIDE(2)	APHICIDE(3)	SOW DATE FUNGICIDE(1)	SOW DATE FUNGICIDE(2)
SED	0.151	0.151	0.214	0.214

TABLE	FUNGICIDE(1)	SOW DATE FUNGICIDE(2)	FUNGICIDE(1)	FUNGICIDE(2)
SED	0.214	0.214	0.214	0.214

TABLE	SOW DATE APHICIDE(2)	FUNGICIDE(1) APHICIDE(2)	FUNGICIDE(2) APHICIDE(2)	APHICIDE(1) APHICIDE(2)
SED	0.214	0.214	0.214	0.214

TABLE	SOW DATE APHICIDE(3)	FUNGICIDE(1) APHICIDE(3)	FUNGICIDE(2) APHICIDE(3)	APHICIDE(1) APHICIDE(3)
SED	0.214	0.214	0.214	0.214

TABLE	APHICIDE(2) APHICIDE(3)
SED	0.214

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

STRATUM	DF	SE	CV%
WP	10	0.428	8.4

GRAIN MEAN DM% 83.2

PLOT AREA HARVESTED 0.00260