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Yields of the Field Experiments 1974



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74/R/WW/2

WINTER WHEAT

RATES OF MERCURY SEED DRESSINGS

Object: To study the effects of a range of rates of two organo-mercury seed dressings on incidence of Septoria nodorum and yield of winter wheat - Little Hoos.

Sponsor: G.L. Bateman.

Design: 3 randomised blocks of 10 plots.

Whole plot dimensions: 4.27 x 11.6. Area harvested: 0.00155.

Treatments: All combinations of:

1. Form of organo-mercury seed dressing

HG FORM

Ethyl mercuric chloride Phenyl mercuric acetate EMC PMA

2. Rate of organo-mercury seed dressing (as mg Hg/kg of seed) HG RATE

| None | - 0.0 |
|------|-------|
| 0.4 | 0.4 |
| 2.0 | 2.0 |
| 10.0 | 10.0 |
| 50.0 | 50.0 |

NOTE: 75% of the seed was infected with Septoria nodorum and 25% with Fusarium spp.

Basal applications: Manures: (0:20:20) at 310 kg, 'Nitro-Chalk' at 400 kg. Weedkiller: Mecoprop ('Compitox Extra' at 4.2 l in 220 l).

Seed: Joss Cambier sown at 210 kg.

Cultivations, etc.:- Deep-tine cultivated: 31 Oct, 1973. Rotary harrowed: 1 Nov. PK applied and spring-tine cultivated: 2 Nov. Seed sown: 6 Nov. N applied: 19 Apr, 1974. Weedkiller applied: 24 Apr. Combine harvested: 18 Sept. Previous crops: Ley 1972, potatoes 1973.

NOTE: Seedling emergence counts were made three times in January-February, 1974. Percentage infection of seedlings with S. nodorum and Fusarium spp. were made on 11 and 25 January, 1974. Ear, flag leaf and second leaf were scored for Septoria infection on 31 July. Samples of harvested seed were tested for S. nodorum and other pathogens.

Standard error per plot.
Grain, tonnes/hectare: 0.234 or 3.3% (19 d.f.)

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74/R/WW/2

TABLES OF MEANS

GRAIN: TONNES/HECTARE

HG RATE

| | 0.0 | 0.4 | 2.0 | 10.0 | 50.0 | Mean |
|---------|------|------|------|------|------|------|
| HG FORM | | | | | | |
| EMC | | 7.32 | 7.08 | 7.57 | 5.27 | 6.81 |
| PMA | | 7.64 | 7.34 | 7.62 | 6.89 | 7.37 |
| Mean | 7.47 | 7.48 | 7.21 | 7.59 | 6.08 | 7.17 |

STANDARD ERFORS OF DIFFERENCES

HG FORM HG RATE HG FORM HG RATE

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0.096 0.135 0.191

Mean D.M. % 79.7