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## Yields of the Field Experiments 1973

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### 73/W/CS/66 - Dazomet & Nitrogen - Maize

#### Rothamsted Research

Rothamsted Research (1974) *73/W/CS/66 - Dazomet & Nitrogen - Maize* ; Yields Of The Field Experiments 1973, pp 219 - 220 - DOI: <https://doi.org/10.23637/ERADOC-1-98>

73/W/CS/66

# DAZOMET AND NITROGEN

Object: To study the cumulative effects of dazomet and nitrogen on pathogens and yield of maize grown continuously - Woburn Butt Furlong.

Sponsors: A.J. Barnard, D. Hornby.

The third year, maize.

For previous years see 71/W/CS/66(t) and 72/W/CS/66(t).

Design: 4 blocks of 2 plots split into 4.

Whole plot dimensions: 2.13 x 16.5. Area harvested: 0.00053.

Treatments: All combinations of:-

Whole plots: 1. Dazomet (kg per annum) cumulative 1971-73: DAZOMET

|     |     |
|-----|-----|
| 0   | 0   |
| 450 | 450 |

Sub plots: 2. Nitrogen fertiliser (kg N per annum) cumulative 1971-73:

|                                                  |        |
|--------------------------------------------------|--------|
|                                                  | N      |
| 50 to seedbed                                    | 50     |
| 100 to seedbed                                   | 100    |
| 150 to seedbed                                   | 150    |
| 100 to seedbed, 50, five weeks after germination | 100+50 |

Basal applications: Manures: (0:14:28) at 870 kg. Weedkiller: Atrazine at 1.1 kg in 280 l.

Seed: Pioneer 131, sown at 30 kg.

Cultivations, etc.:- Deep-tine cultivated: 11 Aug, 1972. Dazomet applied, all plots rotary cultivated twice: 12 Oct. Rolled: 13 Oct. Ploughed: 3 Jan, 1973. PK applied, weedkiller applied and harrowed in: 27 Apr. N applied, seed sown: 2 May. Late N applied: 2 July. Harvested by hand: 1 Nov.

73/W/CS/66

- NOTES: (1) Soil samples were taken in spring before sowing and again after harvest for counts of ectoparasitic nematodes.  
 (2) Leaf samples were taken in September for analysis of % P and K.  
 (3) Plant samples were taken in September for incidence of stem and leaf pathogens.  
 (4) % N in grain was determined.  
 (5) Two plots, DAZOMET 450, N 150 and N 50, were waterlogged and one DAZOMET 0, N 100+50 was damaged by birds. Estimated values were used in the analysis.

Standard error per sub plot.

Grain, tonnes/hectare: 0.835 or 14.5% (15 d.f.)

# TABLES OF MEANS

GRAIN: TONNES/HECTARE

|         | N    |      |      |        | Mean |
|---------|------|------|------|--------|------|
|         | 50   | 100  | 150  | 100+50 |      |
| DAZOMET |      |      |      |        |      |
| 0       | 5.33 | 4.55 | 5.66 | 6.08   | 5.41 |
| 450     | 5.88 | 6.46 | 6.05 | 5.92   | 6.08 |
| Mean    | 5.60 | 5.51 | 5.85 | 6.00   | 5.74 |

# STANDARD ERRORS OF DIFFERENCES

| N     | DAZOMET* |
|-------|----------|
| N     |          |
| 0.417 | 0.590    |

\* Within the same level of DAZOMET only

Mean D.M. % 64.7