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Yields of the Field Experiments 1975

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75/ R/WW/5 - Rates & Times of N & Varieties - Winter Wheat

Rothamsted Research

Rothamsted Research (1976) 75/ R/WW/5 - Rates & Times of N & Varieties - Winter Wheat ; Yields Of The Field Experiments 1975, pp 295 - 296 - DOI: <https://doi.org/10.23637/ERADOC-1-141>

75/R/WW/5

WINTER WHEAT

RATES AND TIMES OF N AND VARIETIES

Object: To study the physiological basis of the response of three varieties of wheat to a wide range of nitrogen levels - Long Hoos IV 6.

Sponsor: G.N. Thorne.

Design: 2 blocks of 24 plots.

Whole plot dimensions: 1.65 x 9.76.

Treatments: All combinations of:-

1. Varieties:

	VARIETY
Cappelle	CAPPELLE
Maris Fundin	FUNDIN
Maris Huntsman	HUNTSMAN

2. Nitrogen fertiliser, as 'Nitro-Chalk' (kg N):

	N
None	0
30	30
60	60
90	90
120	120
150	150
180	180
210	210

Basal applications: Manures: (0:14:28) at 820 kg. Fungicide: Tridemorph at 0.53 kg in 340 l. Iodine-benzanilide ('BASF 3170F' at 2.2 kg in 340 l).

Seed: Sown at 200 kg.

Cultivations, etc.:- Ploughed: 25 Sept, 1974. PK applied: 1 Oct.

Spring-tine cultivated: 14 Oct. Power harrowed and seed sown: 6 Nov.

'Nitro-Chalk' applied: 18 Apr, 1975. Tridemorph applied: 13 June.

Iodine-benzanilide applied: 16 June. Harvested by hand: 7 Aug.

Previous crops: Maize 1973, oats 1974.

NOTE: Plant counts were made after germination and shoot counts throughout the season. Dry weight and leaf areas were determined on six occasions between 19 June and 7 Aug. Soil moisture was measured from April to August. Light penetration of the canopy was measured in July. Rates of photosynthesis and translocation were measured twice in June and once in July. Respiration of shoots and ears was measured at the end of June.

75/R/WW/5

GRAIN TONNES/HECTARE

*** TABLES OF MEANS ***

N	0	30	60	90	120	150	180	210	MEAN
VARIETY									
CAPPELLE	3.58	4.20	4.75	5.82	6.11	6.76	6.16	6.46	5.48
FUNDIN	3.13	4.58	5.59	5.90	6.40	7.59	7.88	6.85	5.99
HUNTSMAN	3.42	4.04	5.40	6.40	6.61	6.97	6.60	7.01	5.81
MEAN	3.38	4.27	5.24	6.04	6.37	7.11	6.88	6.77	5.76

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

TABLE	VARIETY	N	VARIETY
			N
SED	0.122	0.199	0.345

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

STRATUM	DF	SE	CV%
BLOCK.WP	23	0.345	6.0

GRAIN MEAN DM% 89.8

PLOT AREA HARVESTED 0.00023