

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1982

[Full Table of Content](#)



82/R/WW/4 Seed Rates & Divided N Dressings - Winter Wheat

Rothamsted Research

Rothamsted Research (1983) *82/R/WW/4 Seed Rates & Divided N Dressings - Winter Wheat ; Yields Of The Field Experiments 1982*, pp 231 - 233 - DOI: <https://doi.org/10.23637/ERADOC-1-33>

82/R/WW/4

WINTER WHEAT

SEED RATES & DIVIDED N DRESSINGS

Object: To study the effects of a range of rates of early nitrogen dressings on the growth and yield of wheat sown at one third or at standard seed rate - White Horse I.

Sponsors: J. McEwen, R. Moffitt.

Design: 2 randomised blocks of 30 plots.

Whole plot dimensions: 4.27 x 8.08.

Treatments: All combinations of:-

1. SD RATE Seed rates (kg):

67
200

2. EARLY N Nitrogen fertilizer applied 11 Feb, 1982 (kg N) as 'Nitro-Chalk':

0
25
50
75

3. APRIL N Nitrogen fertilizer applied 13 Apr, 1982 (kg N) as 'Nitro-Chalk':

75
100
125

plus extra treatments, all combinations of:-

1. SD RATEX Seed rates (kg):

67
200

2. APRIL NX Nitrogen fertilizer applied 13 Apr, 1982 (kg N):

150
175
200

Basal applications: Weedkillers: Paraquat at 0.56 kg ion in 220 l. Methabenzthiazuron at 1.6 kg in 250 l. Fungicides: Propiconazole at 0.12 kg in 250 l. Carbendazim, maneb and tridemorph (as 'Cosmic' at 4.0 kg) with captafol at 1.2 kg applied with the pirimicarb in 250 l. Insecticides: Omethoate at 0.64 kg in 250 l. Pirimicarb at 0.14 kg. Growth regulator: Chlormequat at 1.7 kg in 250 l.

Seed: Flanders.

82/R/WW/4

Cultivations, etc.:- Heavy spring-tine cultivated twice: 28 Aug, 1981. Paraquat applied: 23 Sept. Heavy spring-tine cultivated: 29 Sept. Spring-tine cultivated: 13 Oct. Seed sown: 14 Oct. Methabenzthiazuron applied: 17 Oct. Omethoate applied: 5 Apr, 1982. Growth regulator applied: 27 Apr. Propiconazole applied: 26 May. Carbendazim, maneb, tridemorph with captafol and pirimicarb applied: 15 June. Combine harvested: 21 Aug. Previous crops: W. beans 1980 and W. oats 1981.

NOTES: (1) Plant counts were made in February, shoot counts in April and ear counts in June.
 (2) 1000 grain weights and N content of grain were measured.

GRAIN TONNES/HECTARE

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

EARLY N	0	25	50	75	MEAN
SD RATE					
67	6.80	7.62	7.15	7.15	7.18
200	7.73	7.23	8.30	7.66	7.73
MEAN	7.26	7.43	7.72	7.40	7.45
APRIL N	75	100	125	MEAN	
SD RATE					
67	7.06	7.16	7.32	7.18	
200	7.31	7.72	8.16	7.73	
MEAN	7.19	7.44	7.74	7.45	
APRIL N	75	100	125	MEAN	
EARLY N					
0	7.09	7.18	7.52	7.26	
25	6.94	7.47	7.86	7.43	
50	7.39	7.39	8.39	7.72	
75	7.33	7.70	7.18	7.40	
MEAN	7.19	7.44	7.74	7.45	
SD RATE	APRIL N	75	100	125	
67	EARLY N				
	0	6.85	6.72	6.83	
	25	7.73	7.47	7.66	
	50	6.87	6.70	7.89	
	75	6.80	7.75	6.89	
200	0	7.33	7.65	8.20	
	25	6.16	7.48	8.06	
	50	7.92	8.09	8.89	
	75	7.85	7.65	7.48	

82/R/WW/4

GRAIN TONNES/HECTARE

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

APRIL NX	150	175	200	MEAN
SD RATEX				
67	6.82	6.45	8.28	7.18
200	8.24	7.39	7.68	7.77
MEAN	7.53	6.92	7.98	7.48

GRAND MEAN 7.46

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

TABLE	SD RATE	EARLY N	APRIL N	SD RATE EARLY N
SED	0.216	0.305	0.264	0.431

TABLE	SD RATE APRIL N	EARLY N APRIL N	SD RATE EARLY N APRIL N	SD RATEX
SED	0.373	0.528	0.747	0.431

SED	0.373	0.528	0.747	0.431
-----	-------	-------	-------	-------

TABLE	APRIL NX	SD RATEX APRIL NX
	0.528	0.747

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.747	10.0

GRAIN MEAN DM% 84.1

PLOT AREA HARVESTED 0.00252