

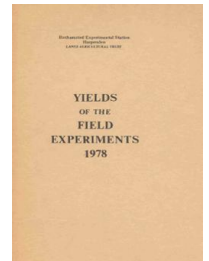
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78/R/WW/5 Seed Rates and Divided N Dressings - W. Wheat

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78/R/WW/5

WINTER WHEAT

SEED RATES AND DIVIDED N DRESSINGS

Object: To study the effects of seed rates, precision sowing, a growth regulator, foliar fungicide and rates and times of nitrogen fertiliser on the growth and yield of winter wheat - Gt. Field I.

Sponsors: J. McEwen, R. Moffitt.

Design: Single replicate of 3 x 2 x 2 x 6.

Whole plot dimensions: 3.25 x 7.62.

Treatments: All combinations of:-

1. DR SD RT Drills and seed rates:

NRDSTN 1	Nordsten conventional drill, seed rate 120 kg
NRDSTN 2	Nordsten conventional drill, seed rate 240 kg
STNHAY 1	Stanhay precision drill, seed rate 120 kg
2. GRTH REG Growth regulator:

NONE	None
CHLORMEQ	Chlormequat at 1.7 kg on 25 April
3. FUNGICIDE Fungicide:

NONE	None
T+C+M+S	Tridemorph at 0.45 kg + carbendazim at 0.21 kg + maneb at 1.33 kg + sulphur at 2.4 kg in 340 l on 12 June, 1978 and on 6 July
4. N Nitrogen fertiliser, times and rates (kg N as 'Nitro-Chalk 25'):

	7 March	17 April	6 June
1 3 1	25	75	25
1 4 1	25	100	25
0 4 0	0	100	0
0 5 0	0	125	0
0 6 0	0	150	0
0 4 1	0	100	25

Basal applications: Manures: (0:20:20) at 310 kg. Weedkillers: Dicamba with mecoprop and MCPA ('Banlene Plus' at 4.9 l in 220 l).

Seed: Maris Huntsman.

Cultivations, etc.: Ploughed: 20 Oct, 1977. Heavy spring-tine cultivated, PK applied: 24 Oct. Rotary harrowed: 25 Oct. Seed sown: 27 Oct. Rolled: 6 Apr, 1978. Weedkiller applied: 10 May. Combine harvested: 4 Sept. Previous crops: Barley 1976, beans 1977.

NOTES: (1) Establishment counts were made in February 1978.
(2) Ear counts were made in August. 1000 grain weights were measured and grain was analysed for N percentage.

78/R/WW/5

GRAIN TONNES/HECTARE

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

GRTH REG	NONE CHLORMEQ		MEAN				
DR SD RT							
NRDSTN 1	8.81	9.39	9.10				
NRDSTN 2	8.90	9.16	9.03				
STNHAY 1	8.96	9.07	9.02				
MEAN	8.89	9.21	9.05				
FUNGIDE	NONE	T+C+M+S	MEAN				
DR SD RT							
NRDSTN 1	9.08	9.12	9.10				
NRDSTN 2	8.99	9.08	9.03				
STNHAY 1	8.87	9.16	9.02				
MEAN	8.98	9.12	9.05				
FUNGIDE	NONE	T+C+M+S	MEAN				
GRTH REG							
NONE	8.79	9.00	8.89				
CHLORMEQ	9.17	9.25	9.21				
MEAN	8.98	9.12	9.05				
N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1	MEAN
DR SD RT							
NRDSTN 1	9.35	9.65	8.06	9.23	9.35	8.96	9.10
NRDSTN 2	9.06	9.56	8.45	8.98	9.01	9.14	9.03
STNHAY 1	8.81	9.26	8.60	8.97	9.07	9.39	9.02
MEAN	9.07	9.49	8.37	9.06	9.14	9.16	9.05
N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1	MEAN
GRTH REG							
NONE	8.97	9.10	8.15	8.84	9.13	9.16	8.89
CHLORMEQ	9.18	9.88	8.59	9.28	9.15	9.16	9.21
MEAN	9.07	9.49	8.37	9.06	9.14	9.16	9.05
N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1	MEAN
FUNGIDE							
NONE	9.05	9.48	8.39	8.95	9.08	8.92	8.98
T+C+M+S	9.10	9.50	8.36	9.17	9.20	9.40	9.12
MEAN	9.07	9.49	8.37	9.06	9.14	9.16	9.05
GRTH REG	NONE	CHLORMEQ					
FUNGIDE	NONE	T+C+M+S	NONE	T+C+M+S			
DR SD RT							
NRDSTN 1	8.71	8.91	9.46	9.32			
NRDSTN 2	8.83	8.98	9.15	9.18			
STNHAY 1	8.82	9.09	8.91	9.23			

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GRAIN TONNES/HECTARE

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

	N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1
DR SD RT GRTH REG							
NRDSTN 1 NONE		9.13	9.41	7.51	8.69	9.33	8.79
CHLORMEQ		9.58	9.88	8.61	9.76	9.36	9.13
NRDSTN 2 NONE		8.91	8.97	8.19	9.00	8.90	9.45
CHLORMEQ		9.21	10.15	8.72	8.96	9.12	8.82
STNHAY 1 NONE		8.87	8.91	8.75	8.82	9.16	9.24
CHLORMEQ		8.75	9.61	8.44	9.13	8.97	9.54

	N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1
DR SD RT FUNGCIDE							
NRDSTN 1 NONE		9.20	9.72	8.16	9.20	9.33	8.89
T+C+M+S		9.50	9.58	7.96	9.26	9.37	9.03
NRDSTN 2 NONE		9.20	9.57	8.41	8.65	9.10	8.98
T+C+M+S		8.92	9.56	8.49	9.31	8.92	9.30
STNHAY 1 NONE		8.75	9.15	8.59	9.01	8.81	8.90
T+C+M+S		8.87	9.36	8.61	8.93	9.32	9.89

	N	1 3 1	1 4 1	0 4 0	0 5 0	0 6 0	0 4 1
GRTH REG FUNGCIDE							
NONE NONE		8.93	9.01	8.22	8.54	9.05	8.96
T+C+M+S		9.00	9.18	8.08	9.14	9.21	9.36
CHLORMEQ NONE		9.17	9.94	8.56	9.37	9.11	8.88
T+C+M+S		9.19	9.82	8.63	9.19	9.19	9.45

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

TABLE	DR SD RT	GRTH REG	FUNGCIDE	N
SED	0.084	0.069	0.069	0.119

TABLE	DR SD RT GRTH REG	DR SD RT FUNGCIDE	GRTH REG FUNGCIDE	DR SD RT N
SED	0.119	0.119	0.098	0.207

TABLE	GRTH REG N	FUNGCIDE N	DR SD RT GRTH REG FUNGCIDE	DR SD RT GRTH REG N
SED	0.169	0.169	0.169	0.293

TABLE	DR SD RT FUNGCIDE N	GRTH REG FUNGCIDE N
SED	0.293	0.239

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

STRATUM	DF	SE	CV%
WP	10	0.293	3.2
GRAIN MEAN DM%	82.0		
PLOT AREA HARVESTED	0.00163		