

## FIELD EXPERIMENTS 1969

Serial No. B.1.

Stat. File 20 IV

CROP: Spring Wheat

Field Rayle

EXPERIMENT: Time of drilling x Seedrate x Nitrogen

TREATMENTS AND LAYOUT: 2 randomised blocks with split plots

1. Main Plots: Time of Drilling
  - (i) March
  - (ii) April
2. Sub plots: All combinations of
  - A. Seedrate 140, 173, 206, and 240 lbs/acre
  - B. Nitrogen 30, 60, 90 and 120 units N/acre

Plot Size: Treatment: 82" x 150'

Harvest: 82" x 113'4"

Manuring with dates of :

Nitrogen spread on seedbed: March 25th &amp; April 14th

Date of	Variety:
Drilling: Early plots: March 25th	Seedrates: 128
	167
	192 252
Late plots: April 14th	Seedrates: 144
	170
	198
	230 lbs/acre

Population assessments: 16th July

Mildew assessments: 17th July

Combining: 5th September

Remark:

Previous crops: 1968 Sugar beet  
1967 Spring barley

Spring Wheat

1969

Time of Drilling x Seedrate x Nitrogen

Yield grain at 15% moisture (cwts/acre)

Nitrogen (units/ac)	Seedrate (lbs/ac)				Means	
	140	173	206	240		
Early	30	25.2	25.2	23.6	24.3	24.5
	60	26.8	28.5	29.6	28.3	28.3
	90	32.7	31.3	31.4	33.9	32.3
	120	32.7	34.4	33.4	32.7	33.3
Means		29.3	29.8	29.5	29.8	
Late	30	11.6	13.7	15.3	16.8	14.3
	60	18.2	20.1	19.9	22.4	20.1
	90	23.1	25.6	26.1	23.4	24.5
	120	25.6	28.0	28.1	28.8	27.7
Means		19.6	21.8	22.3	22.9	
Overall means $\pm$ 0.83		24.5	25.8	25.9	26.3	

S.E. per plot =  $\pm$  0.75 or 2.91%

S.E. per sub-plot =  $\pm$  2.07 or 8.09%

Time of drilling x seedrate x nitrogenPlant numbers ('000 per acre)

	Nitrogen (units/ac)	Seedrates (lbs/ac)				Means
		140	173	206	240	
Early	30	1100	1078	1154	1405	1184
	60	1056	1427	1535	1427	1361
	90	599	1176	1590	1416	1195
	120	1187	1187	1677	1514	1391
	Means	986	1217	1489	1440	
Late	30	795	1056	1100	1002	988
	60	1078	1209	1067	1100	1114
	90	947	882	1154	1503	1122
	120	806	1111	1503	1509	1252
	Means	907	1064	1206	1299	
Overall Means	946	1141	1348	1369		

S.E. per plot =  $\pm$  17.0 or 1.42%S.E. per sub plot =  $\pm$  240.8 or 20.05%Tiller numbers ('000 per acre)

	Nitrogen (units/ac)	Seedrate (lbs/ac)				Means
		140	173	206	240	
Early	30	1437	1535	1666	2222	1715
	60	1503	1873	2080	2189	1911
	90	1634	1753	2287	2134	1952
	120	2004	1862	2200	2222	2072
	Means	1644	1756	2058	2192	
Late	30	980	1307	1448	1514	1312
	60	1383	1644	1448	1699	1544
	90	1274	1492	1819	1840	1606
	120	1329	1427	1786	2189	1683
	Means	1241	1467	1625	1810	
Overall Means						

S.E. per plot = 55.1 or 3.20%

S.E. per sub plot = 237.2 or 13.76%

Time of drilling x seedrate x nitrogenNo. of tillers per plot

Nitrogen (units/ac)		Seedrates (lbs/ac)				Means
		140	173	206	240	
Early	30	1.35	1.54	1.44	1.58	1.48
	60	1.42	1.34	1.39	1.53	1.42
	90	2.76	1.49	1.50	1.54	1.82
	120	1.71	1.56	1.31	1.47	1.51
Means		1.81	1.48	1.41	1.53	
Late	30	1.23	1.24	1.35	1.57	1.35
	60	1.31	1.35	1.36	1.55	1.39
	90	1.34	1.71	1.58	1.28	1.48
	120	1.66	1.28	1.19	1.38	1.38
Means		1.39	1.39	1.37	1.45	
Overall Means		1.60	1.44	1.39	1.49	

S.E. per plot =  $\pm$  .011 or 0.72%S.E. per sub-plot =  $\pm$  0.265 or 17.94%% Mildew infection

Nitrogen (units/ac)		Seedrates (lbs/ac)				Means
		140	173	206	240	
Early	30	2.5	2.0	2.5	4.5	3.0
	60	2.5	2.5	3.5	3.5	3.0
	90	5.5	5.0	4.5	7.5	5.5
	120	8.0	4.5	9.0	3.0	6.0
Means		4.5	3.5	5.0	4.5	
Late	30	3.5	3.0	5.0	5.0	4.0
	60	5.5	5.5	4.0	5.0	5.0
	90	5.0	5.0	4.0	6.5	5.0
	120	12.5	8.5	9.5	10.0	10.0
Means		6.5	5.5	5.5	6.5	
Overall Means		5.5	4.5	5.0	5.5	