NAS 146

FIELD EXPERIMENTS 1970.

Serial No. B.I.

Stat. File 20. V.

CROP: Spring Wheat

Field Wheate Close.

EXPERIMENT: SONORA Spring Wheat

TREATMENTS AND LAYOUT:

72 plots - Combinations of

1. Variety and seed dressing a) Sonora undressed
   b) Sonora dressed with Milstem
   c) Kolibri undressed
2. Nitrogen. 60, 120, 180 and 240 units per acre.
3. Foliar fungicide. 0, 1 or 2 sprays of Calixin at $\frac{1}{2}$ pt./acre.

Plot Size: Treatment: 18' x 6 - 8" rows.

Harvest: 18' x 6 - 8" rows.

Manuring with dates of: 3 cwts 20: 15: 15 in seedbed. Top dressing with Nitro Chalk: 14 May.

Date of

Drilling: 18 April.

Calixin sprays: 1. 1 June.
2.19 June.

Mildew assessment: 4 June, 25 June, 17 July.

Harvesting: 15 August. Cut with Allen Scythe and threshed with a peg drum machine.

Remark:

Because of shortage of seed full replication was impossible; 3 separate comparisons are included within the 72 plots.

Previous cropping: 1969 Potatoes.
1968 Sp. Barley.

Sonora

1. Milstem dressed seed - Fungicide x Nitrogen

Yield grain (cwts/ac) at 15% moisture

Foliar spray	Nitrogen (units/ac) 60	120	180	240	Means (± 0.62)
		(± 1.25)			
0	24.8	25.1	22.9	23.4	24.0
Calixin x 1	25.7	25.3	22.5	25.7	24.8
Calixin x 2	26.6	27.2	26.2	27.8	26.9
Means (± 0.72)	25.7	25.8	23.9	25.6	

S.E. per plot = ± 2.50 or 9.88%

% Mildew on 2nd leaf. 25 June

Foliar spray	Nitrogen (units/ac) 60	120	180	240	Means
0	10.3	21.3	31.3	18.1	20.2
Calixin x 1	11.5	10.6	15.6	12.5	12.6
Calixin x 2	3.3	10.9	7.9	7.5	7.4
Means	8.4	14.3	18.3	12.7	

Score (0-10) for Mildew Infection on Glumes. 17 July

Foliar spray	Nitrogen (units/ac) 60	120	180	240	Means
0	2	3	3	2	2
Calixin x 1	2	2	2	2	2
Calixin x 2	1	1	1	1	1
Means	2	2	2	2	

Sonora

2. Variety, Nitrogen and Mildew Control

Yield grain (cwts/ac) at 15% moisture.

Foliar sprays	SONORA (Milstem dressed) 60 N	120 N	Means	KOLIBRI (undressed) 60 N	120 N	Means	Overall Means
			(± 1.68)			(±1.68)	(± 1.19)
0	23.9	23.8	23.8	29.7	35.1	32.4	28.1
Calixin x 1	26.8	25.2	26.0	34.0	34.4	34.2	30.1
Calixin x 2	27.2	27.5	27.3	34.2	38.1	36.2	31.7
Variety means	(± 0.97) 25.7			34.3			
Nitrogen means	(±1.37) 26.0	25.5		32.6	35.9		
Overall Nitrogen means	(± 0.97)	60 N =	29.3	120 N = 30.7			

S.E. per plot = ± 3.36 or 11.18%

% Mildew on 2nd leaf. 25 June

Foliar sprays	SONORA (Milstem dressing) 60 N	120 N	KOLIBRI (undressed) 60 N	120 N
0	10.3	21.3	7.8	9.4
Calixin x 1	11.5	10.6	4.4	7.2
Calixin x 2	3.3	10.9	2.8	6.9

Score (0.10) for Mildew Infection on Glumes. 17 July

Foliar sprays	SONORA (Milstem dressing) 60 N	120 N	KOLIBRI (undressed) 60 N	120 N
0	2.0	3.0	3.5	3.0
Calixin x 1	2.0	2.5	3.0	3.0
Calixin x 2	1.0	1.5	1.5	2.0

Sonora

3. Variety and Fungicide Foliar Spray

Yield grain (cwts/ac) at 15% moisture

Variety	Foliar sprays 0	Calixinxl	Calixin x 2	Means (± 1.65)
		(± 2.85)		
Sonora (undressed)	21.0	22.0	23.0	22.0
Sonora (Milstem dressed)	23.8	25.2	27.5	25.5
Kolibri (undressed)	35.1	34.4	38.1	35.9
Means (± 1.65)	26.6	27.2	29.5	

S.E. per plot = ± 4.03 or 14.49%

% Mildew on 2nd leaf. 25 June

Variety	Foliar sprays 0	Calixin x 1	Calixin x 2	Means
Sonora (undressed)	51.9	26.9	12.5	30.4
Sonora (Milstem dressed)	21.2	10.6	10.9	14.3
Kolibri (undressed)	9.4	7.2	6.9	7.8
Means	27.5	14.9	10.1	

Mildew score (0-10) for infection on Glumes. 17 July

Variety	Foliar sprays 0	Calixin x 1	Calixin x 2	Means
Sonora (undressed)	3.0	2.5	1.5	2.3
Sonora (Milstem dressed)	3.0	2.5	1.5	2.3
Kolibri (undressed	3.0	3.0	2.0	2.7
Means	3.0	2.7	1.7	