

FIELD EXPERIMENT HISTORY

Title: Date of Planting and Row Spacing Influence on Grain Yield
Experiment: 07 Date of Planting and Row Space **Trial ID:** 2242 **Year:** 2001
Personnel: J.G. Lauer, P.J. Flannery and K.D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: ARS 372 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 11/1 /01 **pH** 6.1 **OM (%)** 2.2 **P (ppm)** 31 **K (ppm)** 139

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivator prior to each DOP

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	46-0-0	325	N/A
Starter :	N/A	N/A	N/A
Post plant :	N/A	N/A	N/A
Manure:	None	None	

Herbicide: Harness 1.5 pt/A **Insecticide:** None
Permit 0.66 oz/A **Hybrid:** See Factors

Irrigation: None

Planting Date: See Factors **Planting Depth:** 1.5" **Row Width:** See Factor
Target Plant Density: See Factors **Planting Method:** Kinze Inter-Row Planter
Harvest Date: 10/26/01 and 10/31/01 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB Split-Plot **Replications:** 4
Plot Size Seeded: 20' x 125' **Experiment Size:** 0.7 A
Harvest Plot Size: 5' x 125' **Harvest Plant Density:** Varies

Factors/Treatments:

<u>Date of Planting:</u>	<u>Row Spacing:</u>	<u>Hybrid:</u>
5/9/01 and 6/11/01	15 inch 30 inch	Pioneer 35R57 Pioneer 37J99

Results: Table C-30.

**Table C-30. Date of Planting and Row Spacing Influence on Grain Yield
Arlington, WI - 2001**

Planting date	Row spacing	Hybrid	Yield Components @ 15.5% moisture									
			Yield	Moisture	Test wt.	Grower return	Lodged	Silk date	Plant number	Ear number	100 Kernel wt.	Kernel no./ear
			bu/A	%	lbs/bu	\$/A	%	doy	plants/A	ears/A	grams	kernels/ear
		Pioneer 35R57	200	29.5	47	390	0.5	217	31833	31833	29.8	535
		Pioneer 37J99	204	24.8	49	409	3.0	212	29833	29833	30.5	574
	15 inches		199	27.1	48	393	2.7	215	29667	29667	30.2	566
	30 inches		205	27.1	48	406	0.8	215	32000	32000	30.1	543
	15 inches	Pioneer 35R57	199	29.6	48	388	0.5	217	31000	31000	30.1	540
	15 inches	Pioneer 37J99	198	24.5	49	398	4.9	212	28333	28333	30.2	592
	30 inches	Pioneer 35R57	202	29.3	47	392	0.5	217	32667	32667	29.6	531
	30 inches	Pioneer 37J99	209	25.0	49	420	1.1	213	31333	31333	30.7	555
May 9			232	22.1	51	472	2.9	209	30333	30333	32.1	608
June 11			173	32.1	45	327	0.6	221	31333	31333	28.2	502
May 9		Pioneer 35R57	237	23.6	50	479	1.0	211	31500	31500	31.6	609
May 9		Pioneer 37J99	226	20.5	51	466	4.9	206	29167	29167	32.6	606
June 11		Pioneer 35R57	164	35.3	44	302	0.0	223	32167	32167	28.1	462
June 11		Pioneer 37J99	182	29.0	46	352	1.1	219	30500	30500	28.3	541
May 9	15 inches		225	22.0	51	459	4.3	209	29000	29000	32.2	614
May 9	30 inches		238	22.1	51	485	1.6	209	31667	31667	32.0	601
June 11	15 inches		172	32.1	45	327	1.1	221	30333	30333	28.2	518
June 11	30 inches		173	32.2	45	327	0.0	220	32333	32333	28.3	485
May 9	15 inches	Pioneer 35R57	238	23.5	51	480	1.1	211	31000	31000	32.0	609
May 9	15 inches	Pioneer 37J99	213	20.6	51	439	7.5	206	27000	27000	32.4	619
May 9	30 inches	Pioneer 35R57	237	23.8	50	478	1.0	211	32000	32000	31.2	608
May 9	30 inches	Pioneer 37J99	239	20.4	51	493	2.2	207	31333	31333	32.8	594
June 11	15 inches	Pioneer 35R57	161	35.8	45	297	0.0	223	31000	31000	28.3	470
June 11	15 inches	Pioneer 37J99	183	28.4	46	357	2.3	219	29667	29667	28.0	565
June 11	30 inches	Pioneer 35R57	166	34.8	44	307	0.0	222	33333	33333	27.9	454
June 11	30 inches	Pioneer 37J99	180	29.6	46	347	0.0	218	31333	31333	28.6	517
Mean			202	27.1	48	400	1.8	215	30833	30833	30.2	555
Probability(%)												
Planting Date (D)			2.0	0.9	0.1	1.5	20.9	0.1	50.3	50.3	0.2	0.6
Row Spacing (S)			11.5	88.1	51.4	13.1	13.4	76.5	6.5	6.5	95.1	30.5
D x S			15.6	97.0	81.5	15.1	52.5	15.2	77.7	77.7	81.0	66.4
Hybrid (H)			41.5	0.0	0.1	4.0	5.9	0.0	10.8	10.8	31.2	9.9
D x H			0.3	0.4	9.4	0.3	27.7	37.6	77.7	77.7	55.3	8.2
S x H			26.0	37.6	21.0	28.8	14.3	37.6	57.3	57.3	37.8	52.1
D x S x H			5.2	14.2	83.2	3.9	55.0	76.5	40.2	40.2	93.1	92.9
LSD (0.10)												
Planting Date (D)			15	1.7	0	32	NS	1	NS	NS	0.3	14
Row Spacing (S)			NS	NS	NS	NS	NS	NS	2051	2051	NS	NS
D x S			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Hybrid (H)			NS	0.8	1	15	2.1	0	NS	NS	NS	38
D x H			10	1.1	1	21	NS	NS	NS	NS	NS	54
S x H			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
D x S x H			14	NS	NS	29	NS	NS	NS	NS	NS	NS
CV(%)												
			5	4	1	5	166	0	9	9	5	9