

FIELD EXPERIMENT HISTORY

Title: Date of Planting and Row Spacing Influence on Grain Yield
Experiment: 07DOPxRS **Trial ID** 1553 **Year:** 2000
Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery and M. Kral
Location: Arlington, WI **County:** Columbia
Supported By: Hatch

Site Information

Field: 373 **Previous Crop:** Soybean **Soil Type:** Plano
Soil Test: **Date:** 6 /1 /00 **pH** 6.3 **OM (%)** 3.2 **P (ppm)** 30 **K (ppm)** 113

Plot Management

Tillage Operations: Fall Chisel Plow Field Cultivator

	<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: Frontier @ 1.5 pt/a **Insecticide:** None
Bladex @ 2.2 lb/a **Hybrid:** See Factors

Irrigation: None

Planting Date: See Factors **Planting Depth:** 1.5" **Row Width:** See Factor
Target Plant Density: **Planting Method:** Kinze Inter-Row Planter
Harvest Date: 10/19/00 and 11/3/00 **Harvest Method:** Kincaid Plot Combine

Experimental Design

Design: RCB Split-Plot **Replications:** 4
Plot Size Seeded: 20' x 75' **Experiment Size:** 0.56 A
Harvest Plot Size: 5' x 22' **Harvest Plant Density:** Varies

Factors/Treatments:

<u>Date of Planting:</u>	<u>Row Spacing:</u>	<u>Hybrid:</u>
May 4	15 inch	Pioneer 35R57
June 7	30 inch	Pioneer 37J99

Results: Table E-20.

**Table E-20. Date of Planting and Row Spacing Influence on Grain Yield
Arlington, WI - 2000**

Planting date	Row spacing	Hybrid	Yield Components @ 15.5% moisture								
			Yield	Moisture	Test wt.	Lodged	Silk date	Plant number	Ear number	100 Kernel wt.	Kernel #/ear
			bu/A	%	lbs/bu	%	doy	plants/A	ears/A	grams	kernels/ear
		Pioneer 35R57	162	26.5	51	1.5	218	27027	27126	28.7	534
		Pioneer 37J99	174	21.4	54	5.4	213	26037	27176	28.6	576
	15 inch		166	24.1	52	3.8	216	24750	25344	29.4	572
	30 inch		170	23.9	52	3.1	216	28314	28958	27.9	538
	15 inch	Pioneer 35R57	165	26.3	51	1.4	218	24750	24948	29.7	570
	15 inch	Pioneer 37J99	168	21.9	54	6.3	213	24750	25740	29.1	574
	30 inch	Pioneer 35R57	160	26.7	51	1.6	218	29304	29304	27.8	498
	30 inch	Pioneer 37J99	181	21.0	54	4.5	214	27324	28611	28.0	578
May 4			192	24.5	54	1.1	209	27077	27869	32.2	550
June 7			145	23.4	51	5.8	223	25988	26433	25.1	559
May 4		Pioneer 35R57	188	27.3	53	0.9	212	27324	27324	32.2	553
May 4		Pioneer 37J99	196	21.6	56	1.4	206	26829	28413	32.2	548
June 7		Pioneer 35R57	137	25.6	49	2.1	225	26730	26928	25.2	515
June 7		Pioneer 37J99	153	21.3	52	9.4	221	25245	25938	24.9	604
May 4	15 inch		189	24.8	54	1.1	209	24057	24849	33.3	584
May 4	30 inch		195	24.2	54	1.1	209	30096	30888	31.1	516
June 7	15 inch		144	23.4	50	6.5	223	25443	25839	25.5	560
June 7	30 inch		146	23.5	51	5.0	223	26532	27027	24.7	559
May 4	15 inch	Pioneer 35R57	188	27.3	53	0.5	212	23760	23760	33.4	608
May 4	15 inch	Pioneer 37J99	189	22.2	56	1.8	206	24354	25938	33.2	560
May 4	30 inch	Pioneer 35R57	187	27.4	53	1.3	212	30888	30888	31.0	498
May 4	30 inch	Pioneer 37J99	203	21.1	55	1.0	206	29304	30888	31.3	535
June 7	15 inch	Pioneer 35R57	141	25.2	49	2.3	225	25740	26136	25.9	532
June 7	15 inch	Pioneer 37J99	147	21.5	52	10.8	221	25146	25542	25.1	587
June 7	30 inch	Pioneer 35R57	133	26.0	49	2.0	225	27720	27720	24.6	497
June 7	30 inch	Pioneer 37J99	159	21.0	52	8.0	221	25344	26334	24.8	621
Mean			168	24.0	52	3.4	216	26532	27151	28.7	555
Probability(%)											
Planting Date (D)			0.1	10.4	1.8	3.9	0.0	19.7	6.4	0.2	44.2
Row Spacing (S)			16.7	50.2	52.8	50.3	47.6	0.0	0.0	0.1	9.0
D x S			45.8	27.4	33.6	50.3	47.6	0.4	0.2	9.3	9.3
Hybrid (H)			0.1	0.0	0.0	0.2	0.0	20.6	94.2	66.5	3.9
D x H			17.8	4.7	50.1	0.7	1.6	52.0	14.0	69.6	2.2
S x H			0.8	5.0	58.4	37.5	81.1	20.6	28.4	33.0	5.8
D x S x H			61.8	90.5	52.8	82.3	81.1	89.7	61.3	68.2	82.9
LSD (0.10)											
Planting Date (D)			5.6	NS	1.4	2.3	0.1	NS	891	1.2	NS
Row Spacing (S)			NS	NS	NS	NS	NS	1343	1197	0.7	34
D x S			NS	NS	NS	NS	NS	1899	1693	1.0	48
Hybrid (H)			5.2	0.6	0.5	2.0	0.5	NS	NS	NS	34
D x H			NS	0.8	NS	2.8	0.7	NS	NS	NS	48
S x H			7.3	0.8	NS	NS	NS	NS	NS	NS	48
D x S x H			NS	NS	NS	NS	NS	NS	NS	NS	NS
CV(%)			5	3	2	90	1	8	7	4	10