

## FIELD EXPERIMENT HISTORY

**Title:** Date of Planting and Row Spacing Influence on Grain Yield  
**Experiment:** 07DOPxRS **Trial ID** 2350 **Year:** 2002  
**Personnel:** J.G. Lauer, P.J. Flannery and K.D. Kohn  
**Location:** Arlington, WI **County:** Columbia  
**Supported By:** Hatch

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### Site Information

**Field:** 371 **Previous Crop:** Soybean **Soil Type:** Plano  
**Soil Test:** **Date:** 11/01/02 **pH** 5.8 **OM (%)** 2.8 **P (ppm)** 36 **K (ppm)** 128

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### Plot Management

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

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
<b>Fertilizer:</b>			
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 2.5 pt/A **Insecticide:** None  
Hornet 4.5 oz/A **Hybrid:** See Factors

**Irrigation:** None

**Planting Date:** See Factors **Planting Depth:** 1.5" **Row Width:** See Factors  
**Target Plant Density:** **Planting Method:** Kinze Inter-Row Planter  
**Harvest Date:** 10/28/02 **Harvest Method:** Kincaid Plot Combine

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### Experimental Design

**Design:** RCB Split-Plot **Replications:** 3  
**Plot Size Seeded:** 20' x 75' **Experiment Size:** 0.62 Acre  
**Harvest Plot Size:** 5' x 75' **Harvest Plant Density:** 29200

### **Factors/Treatments:**

<u>Date of Planting:</u>	<u>Row Spacing:</u>	<u>Hybrid:</u>
May 07	15 inch	Dekalb DKC4628
May 22	30 inch	Dekalb DKC5334
June 10		

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**Results:** Table C-35.

**Table C-35. Date of Planting and Row Spacing Influence on Grain Yield  
Arlington, WI - 2002**

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
		Dekalb DKC4628	144	21.6	55	301	22.2	212	29344	29842	33.7	379
		DeKalb DKC5334	166	25.7	53	339	1.5	213	29123	29676	36.2	416
	15 inches		151	23.6	54	312	13.0	212	26551	27325	35.4	417
	30 inches		159	23.7	54	329	10.6	213	31916	32193	34.4	378
	15 inches	Dekalb DKC4628	135	21.6	55	283	25.5	212	26772	27547	34.5	381
	15 inches	DeKalb DKC5334	167	25.7	53	340	0.6	213	26330	27104	36.4	453
	30 inches	Dekalb DKC4628	152	21.6	55	319	18.9	212	31916	32138	32.9	378
	30 inches	DeKalb DKC5334	166	25.7	53	338	2.3	213	31916	32248	35.9	378
May 07			175	20.9	56	367	11.4	208	26592	26883	32.6	519
May 22			164	21.3	55	344	17.2	210	30658	30907	32.6	414
June 10			126	28.8	51	249	6.8	220	30451	31488	39.6	259
May 07		Dekalb DKC4628	161	19.6	57	342	22.4	207	27464	27712	31.0	486
May 07		DeKalb DKC5334	188	22.2	55	392	0.3	209	25721	26053	34.1	552
May 22		Dekalb DKC4628	144	19.7	57	305	30.7	210	30368	30616	30.9	384
May 22		DeKalb DKC5334	185	22.8	54	384	3.8	210	30948	31197	34.2	445
June 10		Dekalb DKC4628	126	25.5	52	257	13.4	220	30202	31197	39.0	268
June 10		DeKalb DKC5334	125	32.1	51	241	0.3	220	30699	31778	40.2	250
May 07	15 inches		172	20.9	56	360	13.2	208	23315	23647	33.1	569
May 07	30 inches		178	20.9	56	374	9.6	208	29870	30119	32.1	469
May 22	15 inches		155	21.4	56	324	16.5	210	28708	29123	32.9	408
May 22	30 inches		174	21.2	55	365	18.0	210	32608	32691	32.2	421
June 10	15 inches		126	28.7	51	250	9.4	220	27629	29206	40.3	274
June 10	30 inches		125	28.9	51	248	4.2	220	33272	33769	38.9	244

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**Table C-35. Date of Planting and Row Spacing Influence on Grain Yield**

(continued) **Arlington, WI - 2002**

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
May 07	15 inches	Dekalb DKC4628	155	19.6	57	329	26.3	207	24560	24891	31.3	518
May 07	15 inches	DeKalb DKC5334	188	22.1	55	392	0.0	209	22070	22402	34.8	620
May 07	30 inches	Dekalb DKC4628	167	19.6	57	355	18.5	207	30368	30533	30.8	454
May 07	30 inches	DeKalb DKC5334	188	22.2	55	392	0.6	209	29372	29704	33.4	484
May 22	15 inches	Dekalb DKC4628	125	19.9	57	265	31.8	209	28874	29372	30.8	352
May 22	15 inches	DeKalb DKC5334	184	22.8	54	382	1.1	210	28542	28874	35.0	464
May 22	30 inches	Dekalb DKC4628	162	19.5	57	344	29.6	210	31861	31861	31.1	416
May 22	30 inches	DeKalb DKC5334	186	22.9	54	386	6.4	211	33355	33520	33.4	426
June 10	15 inches	Dekalb DKC4628	125	25.2	52	254	18.3	219	26883	28376	41.3	272
June 10	15 inches	DeKalb DKC5334	127	32.1	51	246	0.6	220	28376	30036	39.2	275
June 10	30 inches	Dekalb DKC4628	128	25.7	52	259	8.5	220	33520	34018	36.8	263
June 10	30 inches	DeKalb DKC5334	122	32.0	51	236	0.0	220	33023	33520	41.1	225
Mean			155	23.6	54	320	11.8	213	29234	29759	34.9	397
<b>Probability(%)</b>												
Planting Date (D)			0.8	0.0	0.1	0.4	11.3	0.0	2.9	0.9	0.2	0.2
Row Spacing (S)			5.4	85.3	64.3	4.5	30.9	5.4	0.0	0.0	21.1	0.9
D x S			13.3	71.4	80.0	10.8	46.9	63.5	37.5	27.6	94.9	1.0
Hybrid (H)			0.0	0.0	0.0	0.0	0.0	0.0	77.6	82.1	0.5	1.4
D x H			0.1	0.0	0.1	0.0	6.9	1.0	39.1	36.6	47.8	3.3
S x H			3.2	97.9	90.3	2.7	8.5	61.2	77.6	70.7	47.8	1.5
D x S x H			36.0	55.9	71.9	29.4	98.7	93.6	54.0	42.9	9.1	64.5
<b>LSD (0.10)</b>												
Planting Date (D)			17	0.7	1	34	7.9	1.1	2202	1753	1.8	56
Row Spacing (S)			6.8	NS	NS	NS	NS	0.4	1326	1255	NS	23.1
D x S			NS	NS	NS	24	NS	NS	NS	NS	NS	40.0
Hybrid (H)			6.8	0.4	0	14	3.9	0.4	NS	NS	1.4	23
D x H			12	0.6	1	24	6.9	0.6	NS	NS	NS	40
S x H			9.7	NS	NS	20	5.6	NS	NS	NS	NS	32.7
D x S x H			NS	NS	NS	NS	NS	NS	NS	NS	3.3	NS
<b>CV(%)</b>												
			8	3	1	7	58	0	8	7	7	10