

## FIELD EXPERIMENT HISTORY

**Title:** Influence of Thinning Timing on Corn Grain Yield  
**Experiment:** 16Thin **Trial ID:** 3493 **Year:** 2011  
**Personnel:** J.G. Lauer, K.D. Kohn and T. Diallo  
**Location:** Arlington, WI **County:** Columbia  
**Supported By:** HATCH

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### Site Information

**Field:** ARS408 **Previous Crop:** Corn **Soil Type:** Plano Silt Loam  
**Soil Test:** **Date:** 10/21/11 **pH:** 7.0 **OM (%)** 3.6 **P (ppm)** 66 **K (ppm)** 205

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### Plot Management

**Tillage Operations:** Chisel Plow Field Cultivator Cultivated  
Analysis: Rate lbs/A: Date:  
**Fertilizer:** **Preplant :** 46-0-0 325 lbs N/A  
**Starter :** N/A N/A N/A  
**Post plant :** N/A N/A N/A  
**Manure:** N/A N/A N/A  
**Herbicide:** Dual II Mag 1.5 pt/A **Insecticide:** Force 3G @ 4.4 lbs/A  
Hornet 4.0 oz/A **Hybrid:** See Factors  
**Irrigation:** None  
**Planting Date:** 5/16/11 **Planting Depth:** 1.5" **Row Width:** 30"  
**Target Plant Density:** 45000 plants per acre **Planting Method:** Kinze Inter-Row Planter  
**Harvest Date:** 10/31/11 **Harvest Method:** Massey Ferguson 8XP

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### Experimental Design

**Design:** Split Plot **Replications:** 4  
**Plot Size Seeded:** 10' x 25' **Experiment Size:** 0.9 Acre  
**Harvest Plot Size:** 5' x 21' **Harvest Plant Density:** 18487 plants per acre

### **Factors/Treatments:**

#### Stage and date of Thinning:

V2 - 6/8	V18 - 8/4
V4 - 6/20	R1 - 8/10
V6 - 6/27	R2 - 8/10
V8 - 7/1	R3 - 8/12
V10 - 7/7	R4 - 8/24
V12 - 7/19	R5 - 9/6
V14 - 7/21	R6 - 9/16
V16 - 7/29	

#### Hybrids:

Dekalb DKC52-59  
Pioneer 35F44

**Results: Table C-55.**

**Table C-55. Influence of Thinning on Corn Grain Yield.  
Arlington, WI - 2011.**

Hybrid	Timing of thinning	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Lodging			Grower return \$/A	Harvest pop plants/A	Grain Yield Components			
					Total %	Stalk %	Root %			----- Kernel -----			
										rows/ear no.	per row no.	per ear no.	mass mg
Dekalb DKC52-59		160	18.0	55	32	21	11	862	18500	15.5	36.6	566	322
Pioneer 35F44		149	18.5	57	17	2	15	799	18474	15.5	35.7	554	317
	UTC	216	17.6	57	42	35	8	1168	34641	15.6	34.0	529	281
	V2	187	18.1	56	7	4	3	1005	18254	15.5	39.8	618	332
	V4	177	18.3	55	5	2	3	956	17320	15.6	38.6	601	329
	V6	186	18.1	56	3	2	1	1000	18046	15.3	40.0	614	340
	V8	184	18.0	56	4	1	3	993	17943	15.3	39.1	601	342
	V10	183	17.8	56	4	3	1	988	17994	15.5	38.0	592	368
	V12	167	18.6	56	5	1	4	896	17165	15.4	37.3	574	353
	V14	160	18.4	56	6	4	3	861	17113	15.8	38.5	608	320
	V16	141	18.4	55	14	2	12	760	17268	15.6	38.2	596	308
	V18	134	18.4	56	32	7	25	723	16854	15.5	37.1	572	312
	R1	138	19.0	56	28	1	26	740	17580	15.9	30.7	488	351
	R2	133	19.0	56	28	1	26	714	17320	15.7	34.3	536	311
	R3	127	18.8	56	41	4	37	684	17320	15.0	33.6	507	318
	R4	114	17.8	56	53	29	24	613	16854	15.8	33.8	532	283
	R5	111	17.4	56	62	50	12	600	17372	15.4	32.1	494	282
	R6	109	18.0	56	54	34	20	589	16750	15.1	32.9	498	281
Dekalb DKC52-59	UTC	197	16.5	55	69	68	2	1066	34537	15.6	34.5	538	271
Dekalb DKC52-59	V2	195	17.6	55	11	7	4	1051	18565	15.7	42.2	662	331
Dekalb DKC52-59	V4	193	18.1	55	5	4	1	1042	17839	15.5	39.3	610	340
Dekalb DKC52-59	V6	191	18.0	55	6	3	2	1031	17943	15.2	41.9	636	335
Dekalb DKC52-59	V8	197	17.7	55	3	2	1	1061	18461	14.8	37.4	560	362
Dekalb DKC52-59	V10	188	17.6	55	6	6	0	1014	17839	15.0	39.2	595	364
Dekalb DKC52-59	V12	170	18.6	54	6	2	5	913	16491	15.0	40.7	610	334
Dekalb DKC52-59	V14	176	18.7	55	7	7	1	946	17113	15.7	39.4	618	334
Dekalb DKC52-59	V16	152	18.7	54	14	4	11	818	17528	15.6	37.6	587	330
Dekalb DKC52-59	V18	141	18.5	55	50	12	37	761	17009	15.9	35.5	563	323
Dekalb DKC52-59	R1	150	19.4	54	35	3	32	802	17528	16.0	32.6	520	335
Dekalb DKC52-59	R2	149	19.3	55	35	3	32	800	18046	15.9	33.3	528	333
Dekalb DKC52-59	R3	138	18.8	55	34	7	27	742	17217	15.5	33.7	521	326
Dekalb DKC52-59	R4	114	16.7	55	61	57	5	615	15972	15.8	34.3	541	288
Dekalb DKC52-59	R5	106	16.8	56	87	87	0	572	17528	15.6	32.5	508	263
Dekalb DKC52-59	R6	102	17.3	54	77	57	20	553	16387	14.7	31.5	464	285
Pioneer 35F44	UTC	236	18.7	58	15	1	14	1270	34744	15.5	33.5	521	291
Pioneer 35F44	V2	178	18.7	56	3	1	2	959	17943	15.3	37.5	575	334
Pioneer 35F44	V4	161	18.6	56	4	0	4	869	16802	15.6	38.0	593	318
Pioneer 35F44	V6	180	18.3	57	1	0	1	968	18150	15.4	38.2	591	344
Pioneer 35F44	V8	172	18.3	57	4	0	4	926	17424	15.8	40.8	642	322
Pioneer 35F44	V10	179	18.1	57	1	0	1	963	18150	16.0	36.7	590	372
Pioneer 35F44	V12	163	18.6	57	4	1	3	878	17839	15.8	34.0	538	372
Pioneer 35F44	V14	144	18.1	57	5	1	5	776	17113	15.9	37.7	599	306
Pioneer 35F44	V16	130	18.2	57	14	0	14	702	17009	15.6	38.9	605	286
Pioneer 35F44	V18	127	18.3	58	14	2	12	684	16698	15.0	38.8	581	301
Pioneer 35F44	R1	126	18.6	57	21	0	21	678	17631	15.7	28.8	455	368
Pioneer 35F44	R2	117	18.6	57	20	0	20	628	16594	15.4	35.3	544	288
Pioneer 35F44	R3	117	18.9	57	48	2	46	627	17424	14.6	33.6	492	310
Pioneer 35F44	R4	114	19.0	57	45	1	43	612	17735	15.7	33.4	523	277
Pioneer 35F44	R5	116	18.1	57	37	13	23	627	17217	15.1	31.8	480	300
Pioneer 35F44	R6	116	18.6	57	31	11	20	625	17113	15.6	34.3	532	277
Mean		154	18.2	56	24	11	13	831	18487	15.5	36.1	560	319
<b>Probability(%)</b>													
Hybrid (H)		1.1	16.7	0.1	0.8	0.5	28.6	1.0	85.4	90.0	24.1	40.2	57.2
Treatment (T)		0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	98.1	0.0	0.0	0.2
H x T		0.0	0.0	1.4	0.0	0.0	0.5	0.0	0.2	74.5	15.3	68.5	80.0
<b>LSD (0.10)</b>													
Hybrid (H)		5	NS	0	6	6	NS	25	NS	NS	NS	NS	NS
Treatment (T)		9	0.5	1	11	8	11	51	610	NS	2.9	61	40
H x T		13	0.7	1	16	12	16	72	863	NS	NS	NS	NS