

FIELD EXPERIMENT HISTORY

Title: Influence of Thinning Timing on Corn Grain Yield
Experiment: 16Thin **Trial ID:** 3364 **Year:** 2010
Personnel: J.G. Lauer, K.D. Kohn and T. Diallo
Location: Arlington, WI **County:** Columbia
Supported By: HATCH

Site Information

Field: ARS411 **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/21/10 **pH:** 7.0 **OM (%)** 3.9 **P (ppm)** 48 **K (ppm)** 114

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Cultivated

	<u>Analysis:</u>	<u>Rate lbs/A:</u>	<u>Date:</u>
Fertilizer:			
Preplant :	N/A	N/A	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 Hornet 4.0 oz/A	Insecticide:	Force 3G @ 4.4 lbs/A
Irrigation:	None	Hybrid:	See Factors
Planting Date:	5/10/10	Planting Depth:	1.5"
		Row Width:	30"
Target Plant Density:	45000 plants per acre	Planting Method:	Kinze 3000 Row Planter
Harvest Date:	10/18/10	Harvest Method:	Massey Ferguson 8XP

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:** 20819 plants per acre

Factors/Treatments:

Stage and date of Thinning:

V2 - 5/28	V18 - 7/14
V4 - 6/2	R1 - 7/29
V6 - 6/14	R2 - 8/3
V8 - 6/22	R3 - 8/16
V10 - 6/28	R4 - 8/23
V12 - 7/2	R5 - 9/1
V14 - 7/6	R6 - 9/15
V16 - 7/9	

Hybrids:

Dekalb DKC52-59
Pioneer 35F44

Results: Table C-59.

**Table C-59. Influence of Thinning on Corn Grain Yield.
Arlington, WI - 2010.**

Hybrid	Timing of thinning	Grain yield bu/A	Grain moisture %	Test weight lb/bu	Lodging			Grower return \$/A	Harvest		Grain Yield Components			
					Total %	Sta k %	Root %		pop plants/A	ears ears/A	----- Kernel -----			
											rows/ear no.	per row no.	per ear no.	mass mg
Dekalb DKC52-59		169	13.7	56	7	7	0	757	21115	22364	16.4	36.2	592	321
Pioneer 35F44		166	14.9	58	1	0	0	747	20523	22007	15.9	37.3	595	318
	UTC	236	14.2	57	23	23	0	1060	35055	35315	15.9	32.7	520	275
	V2	194	14.3	57	0	0	0	873	20795	23232	16.1	36.7	593	394
	V4	194	14.3	57	0	0	0	871	20386	22242	16.5	40.1	663	334
	V6	195	14.2	57	0	0	0	876	20898	23284	15.8	38.3	601	370
	V8	192	14.1	57	0	0	0	863	20224	22765	16.1	41.9	674	318
	V10	189	14.0	57	0	0	0	850	21106	23595	16.4	37.0	609	379
	V12	190	14.0	57	0	0	0	853	20276	22921	15.7	41.3	646	329
	V14	180	14.1	57	0	0	0	809	19395	21676	16.5	38.9	641	323
	V16	174	14.1	57	0	0	0	783	19239	21417	16.1	37.4	603	317
	VT	165	14.5	58	0	0	0	740	19395	20950	16.7	38.0	634	314
	R1	147	14.9	57	1	1	0	660	20172	20535	16.8	36.0	602	319
	R2	140	15.0	57	0	0	0	630	19200	19350	16.1	34.6	554	319
	R3	125	14.9	58	0	0	0	559	19343	19446	15.9	34.2	545	305
	R4	123	14.4	57	5	5	1	552	19343	19446	15.8	34.0	534	280
	R5	115	13.8	57	21	21	0	515	18876	19395	16.2	33.5	541	275
	R6	120	14.1	57	10	10	0	537	19395	19395	15.9	33.6	534	263
Dekalb DKC52-59	UTC	226	13.0	55	46	46	0	1015	36300	36507	16.3	30.4	494	273
Dekalb DKC52-59	V2	203	13.7	56	0	0	0	912	21573	23958	16.4	41.5	679	325
Dekalb DKC52-59	V4	196	13.7	56	0	0	0	881	20444	21563	17.1	38.6	660	342
Dekalb DKC52-59	V6	203	13.5	56	0	0	0	912	21158	23647	16.0	35.2	557	415
Dekalb DKC52-59	V8	200	13.5	56	0	0	0	896	21158	23232	16.3	40.2	654	318
Dekalb DKC52-59	V10	191	13.4	56	0	0	0	860	21365	23958	16.8	40.7	683	316
Dekalb DKC52-59	V12	199	13.3	56	0	0	0	895	21469	23336	16.0	40.7	651	331
Dekalb DKC52-59	V14	181	13.7	56	0	0	0	815	19706	21780	16.3	38.9	635	338
Dekalb DKC52-59	V16	179	13.6	56	0	0	0	805	20121	22402	16.2	38.2	618	327
Dekalb DKC52-59	VT	175	14.1	57	0	0	0	784	19706	21469	16.8	37.5	629	326
Dekalb DKC52-59	R1	153	14.6	56	1	1	0	685	20017	20432	17.4	33.7	587	339
Dekalb DKC52-59	R2	137	14.6	56	0	0	0	615	18384	18371	16.4	33.2	543	347
Dekalb DKC52-59	R3	120	14.4	57	0	0	0	537	18772	18876	15.8	33.5	531	324
Dekalb DKC52-59	R4	114	13.6	55	8	8	0	512	18980	19083	15.8	33.9	535	278
Dekalb DKC52-59	R5	110	13.0	55	36	36	0	492	18876	19395	16.1	31.7	509	279
Dekalb DKC52-59	R6	112	13.2	56	21	21	0	501	19809	19809	16.1	31.3	504	261
Pioneer 35F44	UTC	246	15.3	59	0	0	0	1105	33811	34122	15.6	34.9	547	277
Pioneer 35F44	V2	186	14.8	59	0	0	0	834	20017	22506	15.8	31.9	506	462
Pioneer 35F44	V4	192	15.0	58	0	0	0	861	20328	22921	16.0	41.6	666	326
Pioneer 35F44	V6	187	15.0	58	0	0	0	840	20639	22921	15.6	41.4	646	325
Pioneer 35F44	V8	185	14.7	58	0	0	0	830	19291	22299	15.9	43.7	694	318
Pioneer 35F44	V10	187	14.7	59	0	0	0	841	20847	23232	16.0	33.4	534	443
Pioneer 35F44	V12	181	14.6	59	0	0	0	811	19083	22506	15.3	41.9	641	327
Pioneer 35F44	V14	179	14.5	58	0	0	0	804	19083	21573	16.7	38.8	648	309
Pioneer 35F44	V16	169	14.6	58	0	0	0	760	18357	20432	16.0	36.7	587	307
Pioneer 35F44	VT	155	14.9	59	0	0	0	695	19083	20432	16.6	38.6	640	303
Pioneer 35F44	R1	141	15.2	58	0	0	0	635	20328	20639	16.2	38.3	618	299
Pioneer 35F44	R2	144	15.3	59	0	0	0	645	20017	20328	15.7	36.0	564	292
Pioneer 35F44	R3	130	15.3	59	0	0	0	582	19913	20017	16.0	35.0	559	286
Pioneer 35F44	R4	132	15.2	59	2	1	1	593	19706	19809	15.7	34.0	533	282
Pioneer 35F44	R5	120	14.6	59	6	6	0	539	18876	19395	16.2	35.4	573	270
Pioneer 35F44	R6	128	15.0	59	0	0	0	574	18980	18980	15.7	36.0	564	266
Mean		168	14.3	57	4	4	0	752	20819	22185	16.1	36.8	593	320

Probability(%)

Hybrid (H)	34.7	0.0	0.0	1.2	1.1	40.0	34.5	9.2	29.2	2.8	23.2	81.5	80.8
Treatment (T)	0.0	0.0	24.2	0.0	0.0	48.5	0.0	2.4	15.0	34.3	2.8	2.2	0.3
H x T	0.0	0.0	36.4	0.0	0.0	48.5	0.0	0.0	0.0	0.2	0.0	0.0	0.0

LSD (0.10)

Hybrid (H)	NS	0.2	0	3	3	NS	NS	568	NS	0.2	NS	NS	NS
Treatment (T)	12	0.4	NS	7	7	NS	54	1416	NS	NS	5.1	84	61
H x T	8	0.3	NS	5	5	NS	38	996	1157	0.5	3.6	59	43