

FIELD EXPERIMENT HISTORY

Title: Date of Planting and Hybrid Influence on Corn Forage and Corn Grain Yield
Experiment: 03 DOP **Trial ID:** 2925 **Year:** 2006
Personnel: J.G. Lauer, P. J. Flannery, and K. D. Kohn
Location: Arlington, WI **County:** Columbia
Supported By: MPCl

Site Information

Field: ARS369 **Previous Crop:** Soybean **Soil Type:** Plano Silt Loam
Soil Test: **Date:** 10/1 /06 **pH** 6.2 **OM (%)** 3.1 **P (ppm)** 46 **K (ppm)** 116

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	4 /13/06
Starter :	9-23-30	150	Each DOP
Post plant :	N/A	N/A	N/A
Manure:	N/A	N/A	N/A
Herbicide:	Outlook 20 oz/A Hornet 4.0 oz/A	Insecticide: None	
		Hybrid: See Factors	
Irrigation:	none		
Planting Date:	See Factors	Planting Depth: 1.5"	Row Width: 30"
Target Plant Density: 30000 plants per acre		Planting Method: Kinze Plot Planter	
Harvest Date: S: 8/31, 9/8, 9/13, 9/25, 9/27, & 10/25 G: 10/24		Harvest Method: S:New Holland 707 G:Massey Ferguson 8XP	

Experimental Design

Design: RCB split plot **Replications:** 4
Plot Size Seeded: 25' x 20' **Experiment Size:** 1.3 Acre
Harvest Plot Size: S: 22' x 2.5'
G: 22' x 5' **Harvest Plant Density:** S: 30129 plants per acre
G: 30967

Factors/Treatments:

<u>Date of Planting:</u> April 14, April 28, May 22, June 01 & June 15	<u>Hybrids:</u> NK Brand N58-D1 Pioneer 37R71
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Results: Tables C-31, 32 and 33.

**Table C- 31. Planting Date And Hybrid Influence On Corn Grain And Silage Performance
Arlington, WI - 2006.**

Planting Date	Hybrid	Grain																							
		Test			Lodged			Grower Harvest			Plants	Seeds	Silking Early		Kernel Milk			Black	Grain Composition			Ethanol		MPCI	
		Yield bu/A	Moisture %	weight lbs/bu	Total %	Stalk %	Root %	return \$/A	plants/A	emerged plants/A	planted seeds/A	Date doy	dent doy	75% doy	50% doy	25% doy	layer doy	Oil %	Starch %	Protein %	per bu gallons	per A gallons	yield bu/A	Moisture %	
	NK Brand N58-D1	171	31.7	49.1	12	0	11	497	30512	42219	44352	209	248	258	261	272	279	3.1	60.9	7.2	2.91	639	162	28.5	
	Pioneer 37R71	181	24.8	52.6	11	1	11	547	31423	40130	44352	206	239	249	256	260	271	3.7	60.2	7.8	2.85	569	209	24.1	
April 14		216	20.5	54.1	4	1	3	662	30740	38870	44352	198	230	239	246	257	269	3.5	61.0	7.2	2.90	629	-	-	
April 28		232	20.8	54.4	4	1	3	707	32076	36543	44352	199	233	241	249	258	269	3.4	60.9	7.4	2.89	670	214	22.6	
May 22		210	23.8	52.8	14	1	13	627	30690	41592	44352	204	239	248	255	265	277	3.4	60.5	7.2	2.89	607	-	-	
June 01		142	33.0	49.4	37	1	36	401	30542	42743	44352	213	251	263	272	283	288	3.5	59.8	8.1	2.82	471	157	30.1	
June 15		64	45.7	42.2	0	0	0	165	30789	46122	44352	224	266	280	287	-	-	3.3	58.7	10.1	2.75	381	-	-	
April 14	NK Brand N58-D1	220	22.3	54.1	2	0	2	665	30393	40739	44352	198	232	241	251	263	277	3.2	61.4	7.0	2.93	644	-	-	
April 14	Pioneer 37R71	213	18.6	54.2	5	1	4	660	31086	37001	44352	198	228	237	242	252	262	3.8	60.6	7.3	2.88	614	-	-	
April 28	NK Brand N58-D1	234	23.2	54.3	3	1	2	703	30591	35318	44352	199	237	245	254	264	277	3.1	61.1	7.3	2.90	679	201	24.3	
April 28	Pioneer 37R71	229	18.5	54.5	5	2	3	711	33561	37769	44352	198	229	237	244	253	261	3.8	60.7	7.5	2.88	662	226	20.9	
May 22	NK Brand N58-D1	218	27.2	52.3	20	0	20	639	30690	41704	44352	206	245	255	263	273	283	3.1	60.3	7.1	2.91	635	-	-	
May 22	Pioneer 37R71	201	20.4	53.2	7	1	6	615	30690	41481	44352	202	233	240	248	258	272	3.8	60.7	7.4	2.88	578	-	-	
June 01	NK Brand N58-D1	117	37.5	48.7	34	1	33	319	30393	43436	44352	214	257	271	279	289	-	3.1	60.1	8.2	2.82	477	123	32.8	
June 01	Pioneer 37R71	167	28.4	50.2	40	1	39	483	30690	42050	44352	211	245	256	265	277	288	3.6	59.8	8.0	2.82	469	191	27.4	
June 15	NK Brand N58-D1	63	48.1	36.3	0	0	0	159	30492	49896	44352	226	271	286	-	-	-	-	-	-	-	-	-	-	
June 15	Pioneer 37R71	64	42.4	50.1	0	0	0	173	31086	42347	44352	223	262	276	287	-	-	3.3	58.7	10.1	2.75	381	-	-	
Mean		175	28.3	50.8	12	1	11	521	30967	41174	44352	207	244	253	258	266	274	3.4	60.5	7.6	2.87	599	186	26.3	
Probability(%)																									
Date of Planting (D)		0.0	0.0	0.0	3.8	24.3	3.9	0.0	8.1	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.1	0.0	0.0	0.8	0.2	
Hybrid (H)		29.2	0.0	0.1	91.3	16.8	83.2	2.8	11.9	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	57.6	0.5	2.6	0.5	0.0	
D x H		0.3	2.8	0.1	62.6	85.2	60.3	0.3	47.6	0.0	-	3.0	4.1	3.3	42.5	40.0	28.5	50.0	0.1	22.2	10.9	18.9	9.4	5.1	
LSD (0.10)																									
Date of Planting (D)		16	0.8	1.0	11	NS	11	42	554	330	-	0	1	2	2	1	1	0.1	0.1	0.3	0.01	20	9	1.1	
Hybrid (H)		NS	1.3	1.9	NS	NS	NS	36	NS	848	-	1	2	3	4	2	9	0.1	0.2	NS	0.01	18	21	0.8	
D x H		18	1.9	2.7	NS	NS	NS	52	NS	1199	-	1	3	4	NS	NS	NS	NS	NS	NS	NS	NS	30	1.1	
CV(%)		8	5	4	112	142	117	8	6	2	-	1	1	1	2	1	1	2	0	3	0	3	12	3	

continued

Table C- 31. Planting Date And Hybrid Influence On Corn Grain And Silage Performance(continued) **Arlington, WI - 2006.**

Planting Date	Hybrid	Whole Plant															
		Dry Matter		Kernel	KMR	SMR	VMR	Harvest		Crude			In Vitro		Milk per		
		yield	Moisture	milk	0-5	0-5	0-10	plants	ears	protein	ADF	NDF	Digest	NDFD	Starch	Ton	Acre
		tons/A	%	%				plants/A	ears/A	%	%	%	%	%	%	lbs/T	lbs/A
	NK Brand N58-D1	8.7	63.5	41.5	2.1	2.9	5.0	29819	30492	6.9	25.6	49.3	77.8	54.8	26.6	2973	26129
	Pioneer 37R71	7.5	57.7	16.5	0.8	1.6	2.4	29660	30848	7.5	22.9	45.7	79.2	54.2	30.8	3085	23372
April 14		9.0	63.1	45.0	2.3	3.1	5.3	29601	31581	7.1	22.9	45.2	78.8	53.2	32.8	3081	27774
April 28		9.6	54.5	12.5	0.6	1.3	2.0	29502	30195	6.6	22.1	44.7	79.4	53.9	33.4	3119	29797
May 22		9.0	58.3	24.4	1.2	1.9	3.1	29898	31086	6.6	21.4	42.8	79.6	52.4	36.5	3150	28362
June 01		7.3	66.1	53.8	2.7	3.2	5.9	30096	30888	7.6	25.4	48.9	78.7	56.4	23.9	3015	22132
June 15		5.6	61.1	9.4	0.5	1.7	2.1	29601	29601	8.2	29.4	55.9	75.7	56.4	17.0	2779	15689
April 14	NK Brand N58-D1	9.6	66.2	58.8	2.9	3.4	6.3	30492	31086	7.0	24.4	47.4	77.7	53.0	30.1	2998	28665
April 14	Pioneer 37R71	8.5	60.0	31.3	1.6	2.7	4.3	28710	32076	7.2	21.3	43.0	80.0	53.4	35.4	3164	26883
April 28	NK Brand N58-D1	10.7	58.8	21.3	1.1	2.3	3.3	30294	31284	6.4	23.7	46.9	78.6	54.4	30.1	3054	32653
April 28	Pioneer 37R71	8.5	50.2	3.8	0.2	0.4	0.6	28710	29106	6.8	20.5	42.5	80.2	53.4	36.7	3184	26941
May 22	NK Brand N58-D1	9.3	62.3	37.5	1.9	2.7	4.6	29304	30492	6.4	22.4	44.2	79.3	53.1	34.1	3119	29144
May 22	Pioneer 37R71	8.7	54.4	11.3	0.6	1.1	1.6	30492	31680	6.8	20.4	41.5	80.0	51.7	38.9	3181	27580
June 01	NK Brand N58-D1	8.0	67.9	71.3	3.6	3.4	7.0	30096	30690	7.4	27.6	52.3	77.6	57.1	19.9	2902	23575
June 01	Pioneer 37R71	6.6	64.2	36.3	1.8	3.0	4.8	30096	31086	7.8	23.2	45.6	79.9	55.8	27.9	3129	20688
June 15	NK Brand N58-D1	5.9	62.5	18.8	0.9	2.7	3.6	28908	28908	7.5	29.7	55.8	75.6	56.3	19.0	2791	16610
June 15	Pioneer 37R71	5.3	59.7	0.0	0.0	0.6	0.6	30294	30294	8.9	29.2	55.9	75.8	56.6	15.0	2767	14768
Mean		8.1	60.6	29.0	1.5	2.2	3.7	29740	30670	7.2	24.2	47.5	78.5	54.5	28.7	3029	24751
Probability(%)																	
Date of Planting (D)		0.1	0.0	0.0	0.0	0.0	0.0	97.0	38.3	0.3	0.1	0.1	0.6	0.7	0.0	0.2	0.1
Hybrid (H)		0.1	0.0	0.0	0.0	0.0	0.0	83.3	61.0	0.1	0.1	0.2	1.5	13.3	0.1	1.5	1.9
D x H		43.0	8.7	11.9	11.9	0.0	13.9	53.4	48.1	6.8	47.5	31.2	59.2	42.4	2.1	38.0	70.8
LSD (0.10)																	
Date of Planting (D)		1	3	6.9	0.3	0.3	0.4	NS	NS	0.6	2.5	4.2	1.6	1.9	5.4	131	4462
Hybrid (H)		1	1	3.8	0.2	0.1	0.2	NS	NS	0	1.2	1.7	0.9	NS	1.9	72	1843
D x H		NS	3	NS	0.4	0.3	NS	NS	NS	1	NS	NS	NS	NS	4.1	NS	NS
CV(%)																	
		11	4	23	23	11	12	8	7	6	9	7	2	2	12	4	13

**Table C-32. Planting Date And Hybrid Influence On Corn Grain And Silage Performance
Arlington, WI - 2006.**

Planting Date	Hybrid	Harvest Timing	MPCI Grain yield bu/A	Whole Plant										Milk per							
				Dry Matter		Kernel milk %	KMR 0-5	SMR 0-5	VMR 0-10	Harvest		Plant height inches	Cutting height inches	Crude protein %	ADF %	NDF %	In Vitro			Ton lbs/T	Acres lbs/A
				yield tons/A	Moisture %					plants/A	ears/A						Digest %	NDF %	Starch %		
		75% Milk	106	7.6	72.1	84.4	4.2	.	.	29700	30839	99	8.5	7.9	27.9	52.3	76.9	55.7	23.8	2903	22300
		50% Milk	119	8.5	60.3	33.1	1.7	2.3	3.9	29799	30542	99	10.5	7.1	23.7	46.8	79.1	55.2	28.6	3074	26022
		25% Milk	135	8.2	70.5	63.1	3.2	3.4	6.6	30888	31977	99	11.3	8.2	26.6	50.6	77.0	54.3	26.6	2925	24232
	NK Brand N58-D1		110	8.4	70.1	69.8	3.5	3.3	6.4	30195	31119	101	9.7	7.8	28.3	53.2	76.5	55.7	21.6	2866	24371
	Pioneer 37R71		129	7.8	65.1	50.6	2.5	2.3	4.1	30063	31119	97	10.4	7.7	23.9	46.6	78.8	54.5	31.0	3068	23998
	NK Brand N58-D1	75% Milk	98	7.9	73.8	88.8	4.4	.	.	29700	30294	101	8.4	8.0	29.6	55.2	76.1	56.5	19.2	2827	22548
	NK Brand N58-D1	50% Milk	109	9.4	63.4	46.3	2.3	2.8	5.1	30195	30987	101	10.2	6.9	25.7	49.6	78.1	55.8	25.0	2985	28182
	NK Brand N58-D1	25% Milk	124	8.0	73.2	74.4	3.7	3.8	7.6	30690	32076	101	10.6	8.4	29.5	54.8	75.3	54.7	20.7	2786	22384
	Pioneer 37R71	75% Milk	114	7.4	70.3	80.0	4.0	.	.	29700	31383	97	8.6	7.8	26.3	49.5	77.7	55.0	28.4	2978	22052
	Pioneer 37R71	50% Milk	128	7.6	57.2	20.0	1.0	1.7	2.7	29403	30096	98	10.7	7.3	21.8	44.0	80.0	54.6	32.3	3163	23861
	Pioneer 37R71	25% Milk	147	8.5	67.8	51.9	2.6	3.0	5.5	31086	31878	97	12.0	8.0	23.7	46.3	78.7	53.9	32.4	3063	26080
April 28			151	9.2	63.4	41.3	2.1	2.1	3.4	30129	31086	100	9.2	7.1	24.1	47.0	78.4	54.0	31.6	3044	27915
June 01			89	7.0	71.9	79.2	4.0	3.6	7.1	30129	31152	98	11.0	8.4	28.1	52.8	76.9	56.1	21.0	2890	20454
April 28		75% Milk	140	9.1	68.1	70.6	3.5	.	.	29502	30690	100	8.0	7.3	25.1	48.1	78.4	55.1	30.5	3032	27522
April 28		50% Milk	145	9.6	54.5	12.5	0.6	1.3	2.0	29502	30195	100	9.7	6.6	22.1	44.7	79.4	53.9	33.4	3125	29858
April 28		25% Milk	169	8.9	67.5	40.6	2.0	2.9	4.9	31383	32373	100	10.0	7.4	25.1	48.2	77.4	53.0	31.1	2975	26366
June 01		75% Milk	72	6.1	76.0	98.1	4.9	.	.	29898	30987	97	9.0	8.6	30.8	56.6	75.4	56.4	17.1	2773	17078
June 01		50% Milk	93	7.3	66.1	53.8	2.7	3.2	5.9	30096	30888	99	11.3	7.6	25.4	48.9	78.7	56.4	23.9	3023	22185
June 01		25% Milk	102	7.6	73.5	85.6	4.3	3.9	8.2	30393	31581	97	12.6	9.0	28.1	52.9	76.6	55.6	22.1	2874	22099
April 28	NK Brand N58-D1		151	9.8	66.5	49.2	2.5	2.8	4.6	30822	31746	101	9.1	7.1	25.6	49.0	77.6	54.2	28.5	2978	29130
April 28	Pioneer 37R71		151	8.6	60.2	33.3	1.7	1.4	2.3	29436	30426	100	9.4	7.1	22.6	45.0	79.2	53.8	34.7	3110	26701
June 01	NK Brand N58-D1		70	7.0	73.7	90.4	4.5	3.8	8.1	29568	30492	100	10.4	8.4	31.0	57.4	75.4	57.1	14.7	2754	19613
June 01	Pioneer 37R71		108	7.0	70.0	67.9	3.4	3.3	6.0	30690	31812	95	11.5	8.3	25.2	48.2	78.4	55.2	27.3	3026	21295
April 28	NK Brand N58-D1	75% Milk	139	9.4	69.8	77.5	3.9	.	.	30888	31284	101	7.9	7.5	25.8	49.4	77.9	55.3	27.7	2993	28072
April 28	NK Brand N58-D1	50% Milk	144	10.7	58.8	21.3	1.1	2.3	3.3	30294	31284	101	9.5	6.4	23.8	46.9	78.6	54.4	30.1	3061	32725
April 28	NK Brand N58-D1	25% Milk	170	9.2	70.8	48.8	2.4	3.4	5.8	31284	32670	101	9.8	7.4	27.3	50.6	76.1	52.8	27.9	2881	26593
April 28	Pioneer 37R71	75% Milk	141	8.8	66.4	63.8	3.2	.	.	28116	30096	100	8.2	7.1	24.4	46.8	78.9	54.8	33.3	3071	26973
April 28	Pioneer 37R71	50% Milk	145	8.5	50.2	3.8	0.2	0.4	0.6	28710	29106	100	9.8	6.8	20.5	42.5	80.2	53.4	36.7	3190	26990
April 28	Pioneer 37R71	25% Milk	168	8.5	64.1	32.5	1.6	2.3	3.9	31482	32076	100	10.1	7.3	23.0	45.8	78.6	53.3	34.2	3068	26139
June 01	NK Brand N58-D1	75% Milk	58	6.3	77.7	100.0	5.0	.	.	28512	29304	100	9.0	8.6	33.5	61.0	74.2	57.7	10.7	2661	17024
June 01	NK Brand N58-D1	50% Milk	74	8.0	67.9	71.3	3.6	3.4	7.0	30096	30690	100	10.9	7.4	27.6	52.3	77.6	57.1	19.9	2910	23639
June 01	NK Brand N58-D1	25% Milk	78	6.7	75.5	100.0	5.0	4.3	9.3	30096	31482	100	11.4	9.4	31.8	59.0	74.4	56.7	13.6	2691	18176
June 01	Pioneer 37R71	75% Milk	87	5.9	74.2	96.3	4.8	.	.	31284	32670	95	9.1	8.5	28.1	52.2	76.6	55.1	23.6	2885	17131
June 01	Pioneer 37R71	50% Milk	111	6.6	64.2	36.3	1.8	3.0	4.8	30096	31086	97	11.6	7.8	23.2	45.6	79.9	55.8	27.9	3136	20732
June 01	Pioneer 37R71	25% Milk	125	8.5	71.5	71.3	3.6	3.6	7.2	30690	31680	95	13.8	8.7	24.4	46.8	78.7	54.5	30.5	3057	26022
Mean			120	8.1	67.6	60.2	3.0	2.8	5.2	30129	31119	99	10.1	7.7	26.1	49.9	77.6	55.1	26.3	2967	24185
Probability(%)																					
Date of Planting (D)			0.7	0.4	0.0	0.0	0.0	0.0	0.0	100.0	95.4	58.0	4.5	0.5	0.1	0.2	1.7	3.4	0.0	0.6	0.2
Hybrid (H)			0.4	19.4	0.0	0.0	0.0	0.0	0.0	82.3	100.0	0.1	3.9	55.0	0.0	0.0	0.0	0.7	0.0	0.0	80.0
D x H			0.5	20.2	4.7	13.0	13.0	0.0	62.5	4.1	5.4	2.6	26.8	86.6	5.6	1.4	20.6	5.1	0.6	8.0	17.1
Harvest Timing (T)			0.2	28.6	0.0	0.0	0.0	0.0	0.0	20.2	18.9	94.6	0.0	0.0	0.0	0.2	2.6	0.4	0.2	13.4	
D x T			49.6	30.3	0.3	0.6	0.6	0.0	12.9	49.4	63.9	94.6	13.0	17.2	22.6	19.0	16.2	38.6	21.7	17.8	24.2
H x T			89.0	11.7	19.0	0.6	0.6	20.6	27.4	70.4	46.9	94.6	34.7	6.3	32.4	41.5	32.1	75.3	27.8	39.3	9.9
D x H x T			73.8	56.3	25.1	3.1	3.1	1.1	31.7	18.9	51.4	94.6	32.9	49.7	68.3	56.4	90.5	46.0	23.1	91.2	59.0
LSD (0.10)																					
Date of Planting (D)			22	0.6	1.1	4.0	0.2	0.1	0.3	NS	NS	NS	1.2	0.4	0.6	1.2	0.7	1.4	1.3	51	1690
Hybrid (H)			10	NS	1.0	3.6	0.2	0.1	0.3	NS	NS	1	0.5	NS	1.2	1.7	0.9	0.7	1.8	66	NS
D x H			15	NS	1.4	NS	NS	0.2	NS	1406	1581	2	NS	NS	1.7	2.4	NS	1.0	2.6	93	NS
Harvest Timing (T)			13	NS	1.3	4.5	0.2	0.2	0.3	NS	NS	NS	0.7	0.3	1.5	2.1	1.1	0.8	2.2	81	NS
D x T			NS	NS	1.8	6.3	0.3	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
H x T			NS	NS	NS	6.3	0.3	NS	NS	NS	NS	NS	NS	0.4	NS	NS	NS	NS	NS	NS	4307
D x H x T			NS	NS	NS	8.9	0.4	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
CV(%)			18	19	3	12	12	9	10	7	7	3	11	6	9	7	2	3	14	5	21

**Table C-33. Planting Date And Hybrid Influence On Corn Leaf Development
Arlington, WI - 2006.**

Date of Planting	Hybrid	Observation Date day of year	Leaf Development			Plant height inches
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
		153	2.5	4.3	5.2	4.9
		167	4.7	6.8	7.7	10.7
		181	6.5	9.0	10.6	25.8
		195	11.1	13.1	14.1	60.1
		208	15.4	16.2	18.0	86.4
		223	17.5	17.6	17.7	104.2
		237	17.7	17.7	17.8	106.5
	NK Brand N58-D1		11.3	12.7	13.6	60.3
	Pioneer 37R71		11.6	12.8	13.7	62.9
	NK Brand N58-D1	153	2.5	4.3	5.1	4.4
	NK Brand N58-D1	167	4.6	6.8	7.5	9.4
	NK Brand N58-D1	181	6.3	8.6	10.2	23.3
	NK Brand N58-D1	195	10.4	12.9	13.9	55.0
	NK Brand N58-D1	208	15.3	16.2	18.4	83.6
	NK Brand N58-D1	223	17.5	17.7	17.9	105.0
	NK Brand N58-D1	237	18.0	18.0	18.0	108.9
	Pioneer 37R71	153	2.5	4.3	5.3	5.4
	Pioneer 37R71	167	4.8	6.8	7.9	12.0
	Pioneer 37R71	181	6.8	9.4	10.9	28.2
	Pioneer 37R71	195	11.8	13.3	14.3	65.1
	Pioneer 37R71	208	15.5	16.3	17.6	89.3
	Pioneer 37R71	223	17.5	17.5	17.6	103.4
	Pioneer 37R71	237	17.5	17.5	17.6	104.1
April 14			11.8	12.9	13.6	61.7
April 28			12.6	14.0	14.7	66.2
May 22			11.0	12.2	13.0	61.6
June 01			11.2	12.6	13.8	61.0
June 15			10.4	11.9	13.1	55.8
April 14		153	3.5	5.3	6.3	5.6
April 14		167	5.9	8.0	9.1	13.2
April 14		181	8.6	11.3	13.3	35.1
April 14		195	13.9	15.0	15.9	78.0
April 14		208	16.9	16.9	16.9	100.1
April 14		223	16.9	16.9	16.9	100.1
April 14		237	16.9	16.9	16.9	100.1
April 28		153	3.1	5.1	6.1	5.8
April 28		167	6.3	8.6	10.0	15.9
April 28		181	9.4	12.8	14.6	41.2
April 28		195	14.9	16.3	16.9	88.9
April 28		208	18.3	18.3	18.3	103.9
April 28		223	18.3	18.3	18.3	103.9
April 28		237	18.3	18.3	18.3	103.9

continued

Table C-33. Planting Date And Hybrid Influence On Corn Leaf Development
 (continued) **Arlington, WI - 2006.**

Date of Planting	Hybrid	Observation Date day of year	Leaf Development			Plant height inches
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
May 22		153	0.9	2.4	3.3	3.2
May 22		167	4.8	6.8	7.7	9.6
May 22		181	7.4	9.9	11.7	31.4
May 22		195	11.8	13.9	15.1	68.0
May 22		208	17.2	17.2	17.8	103.1
May 22		223	17.6	17.6	17.6	108.1
May 22		237	17.6	17.6	17.6	108.1
June 01		153	-	-	-	-
June 01		167	2.0	3.8	4.0	4.1
June 01		181	5.3	7.6	8.8	17.0
June 01		195	9.1	12.3	13.4	47.9
June 01		208	14.8	15.6	20.3	77.9
June 01		223	18.1	18.1	18.1	109.3
June 01		237	18.1	18.1	18.1	109.6
June 15		153	-	-	-	-
June 15		167	-	-	-	-
June 15		181	2.0	3.4	4.4	4.2
June 15		195	5.7	8.2	9.1	17.4
June 15		208	9.8	13.3	16.7	47.0
June 15		223	16.6	16.9	17.6	99.6
June 15		237	17.8	17.8	17.9	110.6
April 14	NK Brand N58-D1		11.3	12.4	13.1	58.7
April 14	Pioneer 37R71		12.3	13.3	14.1	64.8
April 28	NK Brand N58-D1		13.0	14.5	15.2	65.7
April 28	Pioneer 37R71		12.3	13.5	14.1	66.8
May 22	NK Brand N58-D1		10.9	12.2	13.0	60.6
May 22	Pioneer 37R71		11.2	12.2	13.0	62.7
June 01	NK Brand N58-D1		11.0	12.4	14.3	60.3
June 01	Pioneer 37R71		11.5	12.8	13.3	61.6
June 15	NK Brand N58-D1		10.1	11.8	12.5	54.6
June 15	Pioneer 37R71		10.6	12.0	13.7	57.0
April 14	NK Brand N58-D1	153	3.5	5.1	6.0	4.9
April 14	NK Brand N58-D1	167	5.5	7.6	8.5	11.5
April 14	NK Brand N58-D1	181	7.9	10.1	12.3	29.3
April 14	NK Brand N58-D1	195	12.6	14.5	15.5	68.9
April 14	NK Brand N58-D1	208	16.5	16.5	16.5	98.8
April 14	NK Brand N58-D1	223	16.5	16.5	16.5	98.8
April 14	NK Brand N58-D1	237	16.5	16.5	16.5	98.8
April 14	Pioneer 37R71	153	3.5	5.4	6.5	6.2
April 14	Pioneer 37R71	167	6.3	8.4	9.8	14.9
April 14	Pioneer 37R71	181	9.4	12.4	14.4	40.8
April 14	Pioneer 37R71	195	15.1	15.5	16.3	87.1
April 14	Pioneer 37R71	208	17.3	17.3	17.3	101.5
April 14	Pioneer 37R71	223	17.3	17.3	17.3	101.5
April 14	Pioneer 37R71	237	17.3	17.3	17.3	101.5

continued

Table C-33. Planting Date And Hybrid Influence On Corn Leaf Development
(continued) **Arlington, WI - 2006.**

Date of Planting	Hybrid	Observation Date day of year	Leaf Development			Plant height inches
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
April 28	NK Brand N58-D1	153	3.1	5.1	6.0	5.1
April 28	NK Brand N58-D1	167	6.3	8.9	10.0	14.5
April 28	NK Brand N58-D1	181	9.4	12.6	14.8	38.8
April 28	NK Brand N58-D1	195	14.0	16.1	16.9	85.6
April 28	NK Brand N58-D1	208	19.5	19.5	19.5	105.3
April 28	NK Brand N58-D1	223	19.5	19.5	19.5	105.3
April 28	NK Brand N58-D1	237	19.5	19.5	19.5	105.3
April 28	Pioneer 37R71	153	3.0	5.1	6.3	6.6
April 28	Pioneer 37R71	167	6.3	8.4	10.0	17.4
April 28	Pioneer 37R71	181	9.4	13.0	14.5	43.5
April 28	Pioneer 37R71	195	15.8	16.4	16.9	92.3
April 28	Pioneer 37R71	208	17.1	17.1	17.1	102.6
April 28	Pioneer 37R71	223	17.1	17.1	17.1	102.6
April 28	Pioneer 37R71	237	17.1	17.1	17.1	102.6
May 22	NK Brand N58-D1	153	0.9	2.5	3.4	3.1
May 22	NK Brand N58-D1	167	4.8	6.8	7.5	8.3
May 22	NK Brand N58-D1	181	6.9	9.4	11.0	29.4
May 22	NK Brand N58-D1	195	11.0	13.9	15.1	60.4
May 22	NK Brand N58-D1	208	17.0	17.0	18.1	101.0
May 22	NK Brand N58-D1	223	17.9	17.9	17.9	111.0
May 22	NK Brand N58-D1	237	17.9	17.9	17.9	111.0
May 22	Pioneer 37R71	153	1.0	2.4	3.3	3.3
May 22	Pioneer 37R71	167	4.9	6.9	7.9	10.9
May 22	Pioneer 37R71	181	7.9	10.4	12.4	33.4
May 22	Pioneer 37R71	195	12.5	13.9	15.1	75.6
May 22	Pioneer 37R71	208	17.4	17.4	17.4	105.1
May 22	Pioneer 37R71	223	17.4	17.4	17.4	105.1
May 22	Pioneer 37R71	237	17.4	17.4	17.4	105.1
June 01	NK Brand N58-D1	153	-	-	-	-
June 01	NK Brand N58-D1	167	2.0	3.8	4.0	3.4
June 01	NK Brand N58-D1	181	5.4	7.4	8.8	15.4
June 01	NK Brand N58-D1	195	8.8	12.3	13.3	44.3
June 01	NK Brand N58-D1	208	13.9	15.1	23.5	69.8
June 01	NK Brand N58-D1	223	18.0	18.0	18.0	114.6
June 01	NK Brand N58-D1	237	18.0	18.0	18.0	114.6
June 01	Pioneer 37R71	153	-	-	-	-
June 01	Pioneer 37R71	167	2.0	3.8	4.0	4.8
June 01	Pioneer 37R71	181	5.1	7.9	8.9	18.6
June 01	Pioneer 37R71	195	9.5	12.4	13.5	51.6
June 01	Pioneer 37R71	208	15.8	16.0	17.0	86.1
June 01	Pioneer 37R71	223	18.3	18.3	18.3	103.9
June 01	Pioneer 37R71	237	18.3	18.3	18.3	104.6

continued

Table C-33. Planting Date And Hybrid Influence On Corn Leaf Development
(continued) **Arlington, WI - 2006.**

Date of Planting	Hybrid	Observation Date day of year	Leaf Development			Plant height inches
			Leaf collars no./plant	Hail adjusters method no./plant	Total leaves no./plant	
June 15	NK Brand N58-D1	153	-	-	-	-
June 15	NK Brand N58-D1	167	-	-	-	-
June 15	NK Brand N58-D1	181	2.0	3.6	4.4	3.8
June 15	NK Brand N58-D1	195	5.5	7.9	8.6	16.0
June 15	NK Brand N58-D1	208	9.4	13.0	14.1	43.0
June 15	NK Brand N58-D1	223	15.6	16.4	17.4	95.4
June 15	NK Brand N58-D1	237	18.0	18.0	18.0	114.6
June 15	Pioneer 37R71	153	-	-	-	-
June 15	Pioneer 37R71	167	-	-	-	-
June 15	Pioneer 37R71	181	2.0	3.1	4.4	4.6
June 15	Pioneer 37R71	195	5.9	8.5	9.5	18.8
June 15	Pioneer 37R71	208	10.1	13.5	19.3	51.0
June 15	Pioneer 37R71	223	17.5	17.5	17.8	103.8
June 15	Pioneer 37R71	237	17.5	17.5	17.8	106.6
Mean			11.5	12.8	13.7	61.6
Probability(%)						
Date of Planting (D)			0.0	0.0	0.0	0.0
Hybrid (H)			0.4	28.3	80.9	0.0
D x H			0.0	0.0	2.9	3.2
Sample DOY (S)			0.0	0.0	0.0	0.0
D x S			0.0	0.0	0.0	0.0
H x S			0.0	4.9	71.9	0.0
D x H x S			0.0	2.6	28.7	0.0
LSD(0.10)						
Date of Planting (D)			0.4	0.5	1.0	2.5
Hybrid (H)			0.2	NS	NS	1.9
D x H			0.4	0.4	1.1	2.3
Sample DOY (S)			0.3	0.3	0.9	1.9
D x S			0.7	0.7	2.0	4.2
H x S			0.4	0.5	NS	2.7
D x H x S			1.0	1.0	NS	5.9
CV(%)						
			7	6	17	8

**Table C-34. Planting Date And Hybrid Influence On Corn Quality
Arlington, WI - 2005.**

Planting Date	Brand	Hybrid	Grain Composition			Ethanol	
			Oil %	Starch %	Protein %	per bu gallons	per A gallons
	Dekalb	DKC58-78(YGCB)	3.9	58.6	8.1	2.85	593
	NK Brand	N32-L9	3.7	58.5	8.3	2.86	544
	NK Brand	N17-R3	3.4	58.1	9.0	2.85	389
April 15			3.8	58.8	8.0	2.87	603
April 29			3.9	58.7	8.1	2.86	595
May 10			3.9	58.7	8.0	2.86	548
May 23			3.9	58.7	8.3	2.84	578
June 01			3.7	58.7	8.2	2.87	564
June 15			3.1	57.3	9.4	2.82	321
April 15	Dekalb	DKC58-78(YGCB)	3.8	58.7	8.0	2.86	623
April 15	NK Brand	N32-L9	3.8	59.0	8.0	2.88	583
April 29	Dekalb	DKC58-78(YGCB)	4.1	58.7	8.0	2.85	619
April 29	NK Brand	N32-L9	3.8	58.7	8.1	2.87	570
May 10	Dekalb	DKC58-78(YGCB)	3.9	58.3	8.1	2.84	571
May 10	NK Brand	N32-L9	3.9	59.0	7.9	2.88	525
May 23	Dekalb	DKC58-78(YGCB)	3.7	58.6	8.2	2.85	559
May 23	NK Brand	N32-L9	4.1	58.7	8.3	2.84	597
June 01	NK Brand	N32-L9	3.8	58.5	8.1	2.86	600
June 01	NK Brand	N17-R3	3.6	58.9	8.3	2.88	528
June 15	NK Brand	N32-L9	3.1	57.2	9.1	2.83	391
June 15	NK Brand	N17-R3	3.1	57.3	9.7	2.82	251
Mean			3.7	58.5	8.3	2.85	535
Probability(%)							
Date of Planting (D)			0.0	0.3	0.1	0.8	0.0
Hybrid (H)			46.0	21.9	0.5	0.2	0.1
D x H			1.8	55.4	18.7	0.7	17.1
LSD (0.10)							
Date of Planting (D)			0.1	0.5	0.3	0.02	47
Hybrid (H)			NS	NS	0.1	0.01	28
D x H			0.2	NS	NS	0.02	NS
CV(%)							
			4	1	2	0	7

**Table C-35. Planting Date And Hybrid Influence On Corn Grain Quality.
Arlington, WI - 2004.**

Planting Date	Hybrid	Grain Composition			Ethanol	
		Oil %	Starch %	Protein %	per bu gallons	per A gallons
	AgriGold A6333Bt	3.4	61.1	7.8	2.82	468
	NK Brand N32L9	3.6	60.8	8.0	2.83	417
April 12		3.6	60.9	7.3	2.88	569
April 30		3.6	60.7	7.3	2.87	606
May 12		3.6	60.9	7.3	2.86	521
May 20		3.5	60.9	7.6	2.84	472
June 01		3.4	61.2	7.7	2.83	409
June 15		3.1	61.2	9.9	2.67	78
April 12	AgriGold A6333Bt	3.4	61.2	7.0	2.88	631
April 12	NK Brand N32L9	3.8	60.5	7.7	2.87	507
April 30	AgriGold A6333Bt	3.6	60.9	7.0	2.87	672
April 30	NK Brand N32L9	3.7	60.5	7.8	2.87	541
May 12	AgriGold A6333Bt	3.5	61.2	6.9	2.87	553
May 12	NK Brand N32L9	3.7	60.7	7.6	2.85	490
May 20	AgriGold A6333Bt	3.3	61.3	7.3	2.84	492
May 20	NK Brand N32L9	3.6	60.6	7.9	2.84	453
June 01	AgriGold A6333Bt	3.3	61.4	7.5	2.80	413
June 01	NK Brand N32L9	3.4	60.9	7.9	2.85	406
June 15	AgriGold A6333Bt	3.1	60.8	11.1	2.63	50
June 15	NK Brand N32L9	3.1	61.7	8.7	2.71	106
Mean		3.5	61.0	7.9	2.82	443
Probability(%)						
Date of Planting (D)		0.0	50.2	0.0	0.0	0.0
Hybrid (H)		0.1	1.8	23.1	0.9	0.0
D x H		14.9	0.5	0.0	0.0	0.0
LSD (0.10)						
Date of Planting (D)		0.1	NS	0.3	0.02	48
Hybrid (H)		0.1	0.1	NS	0.01	13
D x H		NS	0.4	0.2	0.02	33
CV(%)		2	0	2	0	5