

## FIELD EXPERIMENT HISTORY

**Title:** Determining Corn Hybrid Maturity - Date of Planting by Hybrid. **Year:** 1996  
**Personnel:** J.G. Lauer, K.D. Hudelson  
**Location:** Arlington Research Station, Arlington, WI  
**Supported by:** Hatch

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### FIELD INFORMATION

Field: 410W  
Soil Type: Plano Silt Loam  
Soil Test Results: Test Date: 7/95    pH: 6.8    P (ppm): 76    K (ppm): 215    OM (%): 3.3  
Fertilizer: Each Planting Date: 150 lbs/a 6-24-24 starter  
Preplant - 150 lbs N/a 46-0-0  
Tillage Operations: Chisel Plow, Field Cultivate(2x)  
Field Cultivate before each planting  
Previous Crop: Soybean  
Irrigation: None

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### EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split Plot  
Replicates: 4  
Variables: A: Date of Planting, B: Hybrid  
Date of Planting: April 26  
May 1  
May 15  
May 20  
May 30  
June 13  
Hybrids: Northrup King 9060  
Pioneer 3845  
Dekalb DK493  
Pioneer 3394  
Area Planted: 10' x 25'  
Area Harvested: 5.0' x 22'  
Row Spacing: 30"  
Planting Date: See above  
Planting Equip: Kinze Plot Planter w/seed cones  
Planting Rate: ~40,000 plants/a thinned to 28,000 plants/a  
Harvesting Date: 8-Nov  
Harvesting Equip: Gleaner Plot Combine  

	<u>Material</u>	<u>Rate</u>	<u>Method</u>
Herbicides:	Bladex	2 qts/a	preemerge
	Lasso	2 qts/a	preemerge

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Results: Tables E-12 and E-13.

**Table E-12. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1996.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 26		.	7.9	9.8	11.2	97.1
May 1		.	7.3	9.1	10.4	87.9
May 15		.	7.3	9.1	10.4	88.5
May 20		.	7.6	9.5	10.8	93.4
May 30		.	8.5	10.4	11.7	115.8
June 13		.	9.2	11.2	12.8	127.3
	Dekalb DK493	.	7.9	9.7	11.2	98.0
	NK PX9060	.	7.7	9.7	10.9	97.2
	Pioneer 3394	.	7.8	9.6	10.9	97.2
	Pioneer 3845	.	8.1	10.1	11.5	106.5
April 26	Dekalb DK493	.	7.8	9.6	11.1	93.7
April 26	NK PX9060	.	7.7	9.7	10.9	92.0
April 26	Pioneer 3394	.	8.3	10.0	11.3	97.4
April 26	Pioneer 3845	.	7.9	9.9	11.4	105.2
May 1	Dekalb DK493	.	7.2	8.8	10.2	87.4
May 1	NK PX9060	.	7.2	9.2	10.4	86.2
May 1	Pioneer 3394	.	6.9	8.6	10.0	81.8
May 1	Pioneer 3845	.	7.7	9.6	11.0	96.2
May 15	Dekalb DK493	.	7.4	9.1	10.6	89.6
May 15	NK PX9060	.	7.0	8.9	10.2	86.0
May 15	Pioneer 3394	.	7.1	8.8	10.0	87.7
May 15	Pioneer 3845	.	7.7	9.6	11.0	90.7
May 20	Dekalb DK493	.	7.8	9.4	10.8	92.4
May 20	NK PX9060	.	7.4	9.5	10.6	90.1
May 20	Pioneer 3394	.	7.4	9.2	10.5	90.5
May 20	Pioneer 3845	.	7.9	9.8	11.1	100.7
May 30	Dekalb DK493	.	8.7	10.5	12.0	116.9
May 30	NK PX9060	.	8.4	10.4	11.4	111.1
May 30	Pioneer 3394	.	8.4	10.2	11.6	113.1
May 30	Pioneer 3845	.	8.7	10.5	11.9	122.1
June 13	Dekalb DK493	.	9.1	11.4	12.9	117.0
June 13	NK PX9060	.	9.1	11.0	12.5	131.9
June 13	Pioneer 3394	.	9.1	11.0	12.6	124.0
June 13	Pioneer 3845	.	9.5	11.5	13.0	136.5
		151	0.6	0.9	2.8	4.1
		161	1.9	3.1	4.2	6.9
		170	3.6	5.4	6.5	22.7
		177	4.9	7.3	8.5	39.2
		182	6.0	8.5	10.2	55.3
		193	8.9	12.2	14.1	107.0
		200	11.1	13.6	15.5	149.7
		211	12.2	13.8	15.8	192.1
		239	17.9	17.9	17.9	280.5

**Table E-12. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1996.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 26		151	1.0	1.6	3.4	5.0
April 26		161	2.6	4.1	5.1	8.8
April 26		170	4.8	6.9	8.2	32.6
April 26		177	5.8	8.8	10.0	52.7
April 26		182	7.6	10.6	12.7	85.9
April 26		193	10.6	13.7	15.4	139.5
April 26		200	12.7	14.7	16.4	174.4
April 26		211	.	.	.	.
April 26		239	18.5	18.5	18.5	277.6
May 1		151	0.4	0.7	2.8	3.9
May 1		161	2.1	3.3	4.3	6.5
May 1		170	4.2	5.8	7.0	24.2
May 1		177	5.1	7.6	8.8	41.7
May 1		182	6.9	9.6	11.4	58.8
May 1		193	9.9	13.5	15.4	119.4
May 1		200	12.2	14.5	16.0	164.9
May 1		211	.	.	.	.
May 1		239	18.0	18.0	18.0	283.8
May 15		151	0.2	0.3	2.3	3.4
May 15		161	2.0	3.4	4.3	7.9
May 15		170	4.1	6.0	7.2	26.7
May 15		177	5.3	8.0	9.1	43.0
May 15		182	6.9	9.6	11.3	68.3
May 15		193	9.7	13.1	15.1	119.1
May 15		200	12.2	14.4	16.3	165.3
May 15		211	.	.	.	.
May 15		239	17.9	17.9	17.9	274.3
May 20		151	.	.	.	.
May 20		161	1.0	1.8	3.0	4.3
May 20		170	2.9	4.5	5.6	18.8
May 20		177	4.4	6.8	7.8	33.7
May 20		182	6.3	8.6	10.2	54.9
May 20		193	9.3	12.8	14.7	108.7
May 20		200	11.3	13.8	16.0	148.0
May 20		211	.	.	.	.
May 20		239	18.0	18.0	18.0	285.5
May 30		151	.	.	.	.
May 30		161	.	.	.	.
May 30		170	2.0	3.6	4.6	11.2
May 30		177	3.8	5.6	6.6	25.0
May 30		182	4.9	7.3	8.9	44.2
May 30		193	8.1	11.4	13.5	92.0
May 30		200	9.7	12.7	14.7	144.2
May 30		211	13.6	14.5	16.2	208.7
May 30		239	17.7	17.7	17.7	285.3

**Table E-12. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1996.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
June 13		151	.	.	.	.
June 13		161	.	.	.	.
June 13		170	.	.	.	.
June 13		177	.	.	.	.
June 13		182	3.7	5.5	6.7	19.5
June 13		193	5.5	8.6	10.4	63.5
June 13		200	8.2	11.4	13.5	101.6
June 13		211	10.9	13.1	15.5	175.5
June 13		239	17.7	17.7	17.7	276.6
	Dekalb DK493	151	0.5	0.6	2.4	3.8
	Dekalb DK493	161	1.7	2.7	3.8	6.4
	Dekalb DK493	170	3.5	4.9	6.1	20.9
	Dekalb DK493	177	4.8	7.1	8.2	36.8
	Dekalb DK493	182	6.1	8.3	10.1	53.3
	Dekalb DK493	193	8.6	11.9	14.1	103.6
	Dekalb DK493	200	10.9	13.6	15.7	150.1
	Dekalb DK493	211	11.9	13.8	16.3	183.7
	Dekalb DK493	239	19.1	19.1	19.1	280.1
	NK PX9060	151	0.4	1.0	3.1	4.1
	NK PX9060	161	2.0	3.5	4.3	6.5
	NK PX9060	170	3.6	5.8	6.8	20.2
	NK PX9060	177	5.0	7.7	8.8	37.3
	NK PX9060	182	6.1	9.0	10.7	54.6
	NK PX9060	193	9.0	12.2	14.0	104.7
	NK PX9060	200	11.5	13.7	15.3	146.1
	NK PX9060	211	12.6	13.9	15.2	198.5
	NK PX9060	239	15.7	15.7	15.7	271.2
	Pioneer 3394	151	0.4	0.5	2.6	3.7
	Pioneer 3394	161	1.9	2.7	3.9	6.4
	Pioneer 3394	170	3.6	4.9	6.0	21.3
	Pioneer 3394	177	4.6	6.8	7.9	36.8
	Pioneer 3394	182	5.7	7.9	9.5	53.0
	Pioneer 3394	193	8.9	12.2	13.9	102.6
	Pioneer 3394	200	10.7	13.6	15.5	144.5
	Pioneer 3394	211	11.4	13.5	15.7	173.1
	Pioneer 3394	239	18.6	18.6	18.6	284.3
	Pioneer 3845	151	0.9	1.3	3.2	4.8
	Pioneer 3845	161	2.1	3.7	4.7	8.4
	Pioneer 3845	170	3.8	5.8	7.0	28.5
	Pioneer 3845	177	5.2	7.7	8.9	46.1
	Pioneer 3845	182	6.2	8.8	10.5	60.3
	Pioneer 3845	193	8.9	12.4	14.4	117.2
	Pioneer 3845	200	11.2	13.5	15.4	158.2
	Pioneer 3845	211	12.9	14.1	16.1	212.9
	Pioneer 3845	239	18.4	18.4	18.4	286.6

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Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 26	Dekalb DK493	151	0.9	1.2	3.0	4.2
April 26	Dekalb DK493	161	2.0	3.6	4.6	7.2
April 26	Dekalb DK493	170	4.3	6.3	7.7	30.5
April 26	Dekalb DK493	177	5.8	8.3	9.4	47.4
April 26	Dekalb DK493	182	7.4	9.7	12.0	77.1
April 26	Dekalb DK493	193	9.9	13.4	15.9	129.0
April 26	Dekalb DK493	200	13.0	15.4	17.0	165.1
April 26	Dekalb DK493	211	.	.	.	.
April 26	Dekalb DK493	239	19.0	19.0	19.0	288.7
April 26	NK PX9060	151	0.8	1.9	3.6	4.2
April 26	NK PX9060	161	2.8	4.2	5.2	7.6
April 26	NK PX9060	170	4.8	7.2	8.3	27.9
April 26	NK PX9060	177	5.9	9.3	10.6	48.3
April 26	NK PX9060	182	7.6	11.3	13.4	78.7
April 26	NK PX9060	193	10.9	13.4	14.7	137.2
April 26	NK PX9060	200	12.8	14.6	15.8	172.7
April 26	NK PX9060	211	.	.	.	.
April 26	NK PX9060	239	15.9	15.9	15.9	259.0
April 26	Pioneer 3394	151	1.1	1.4	3.3	5.5
April 26	Pioneer 3394	161	2.8	4.3	5.3	9.7
April 26	Pioneer 3394	170	5.1	7.0	8.2	33.9
April 26	Pioneer 3394	177	5.9	8.6	9.7	58.4
April 26	Pioneer 3394	182	7.6	10.1	12.0	92.3
April 26	Pioneer 3394	193	11.0	14.0	15.1	140.2
April 26	Pioneer 3394	200	13.0	14.9	16.8	177.0
April 26	Pioneer 3394	211	.	.	.	.
April 26	Pioneer 3394	239	19.9	19.9	19.9	262.3
April 26	Pioneer 3845	151	1.3	2.0	3.6	5.9
April 26	Pioneer 3845	161	2.8	4.3	5.4	10.6
April 26	Pioneer 3845	170	5.0	7.2	8.4	38.1
April 26	Pioneer 3845	177	5.7	8.8	10.2	56.7
April 26	Pioneer 3845	182	7.8	11.2	13.2	95.7
April 26	Pioneer 3845	193	10.8	13.8	15.9	151.4
April 26	Pioneer 3845	200	12.1	13.9	15.9	182.9
April 26	Pioneer 3845	211	.	.	.	.
April 26	Pioneer 3845	239	19.1	19.1	19.1	300.6
May 1	Dekalb DK493	151	0.3	0.4	2.4	3.8
May 1	Dekalb DK493	161	1.9	2.8	3.8	6.4
May 1	Dekalb DK493	170	4.0	5.2	6.4	21.2
May 1	Dekalb DK493	177	4.7	6.9	8.0	34.7
May 1	Dekalb DK493	182	7.0	9.4	11.1	55.0
May 1	Dekalb DK493	193	10.0	13.1	15.4	116.8
May 1	Dekalb DK493	200	12.0	14.7	16.4	175.3
May 1	Dekalb DK493	211	.	.	.	.
May 1	Dekalb DK493	239	19.0	19.0	19.0	286.2

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Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 1	NK PX9060	151	0.3	0.9	3.1	4.2
May 1	NK PX9060	161	2.1	3.9	4.8	5.9
May 1	NK PX9060	170	4.3	6.6	7.6	20.7
May 1	NK PX9060	177	5.4	8.3	9.3	42.3
May 1	NK PX9060	182	7.0	10.1	11.9	64.8
May 1	NK PX9060	193	10.0	13.1	14.8	131.1
May 1	NK PX9060	200	12.3	14.1	15.4	164.3
May 1	NK PX9060	211	.	.	.	.
May 1	NK PX9060	239	16.3	16.3	16.3	256.3
May 1	Pioneer 3394	151	0.1	0.1	2.4	3.0
May 1	Pioneer 3394	161	2.0	2.7	3.9	5.5
May 1	Pioneer 3394	170	4.0	5.2	6.3	20.3
May 1	Pioneer 3394	177	4.3	6.8	7.8	35.6
May 1	Pioneer 3394	182	6.8	9.0	11.0	52.5
May 1	Pioneer 3394	193	9.8	13.7	15.4	103.6
May 1	Pioneer 3394	200	11.8	14.7	16.1	147.3
May 1	Pioneer 3394	211	.	.	.	.
May 1	Pioneer 3394	239	18.0	18.0	18.0	286.2
May 1	Pioneer 3845	151	0.8	1.2	3.1	4.7
May 1	Pioneer 3845	161	2.2	3.9	4.9	8.0
May 1	Pioneer 3845	170	4.3	6.0	7.7	34.7
May 1	Pioneer 3845	177	5.9	8.4	9.9	54.2
May 1	Pioneer 3845	182	7.0	9.7	11.6	63.1
May 1	Pioneer 3845	193	9.9	14.1	15.9	126.0
May 1	Pioneer 3845	200	12.8	14.4	16.0	172.7
May 1	Pioneer 3845	211	.	.	.	.
May 1	Pioneer 3845	239	18.8	18.8	18.8	306.5
May 15	Dekalb DK493	151	0.2	0.1	1.9	3.4
May 15	Dekalb DK493	161	2.0	3.0	4.0	6.8
May 15	Dekalb DK493	170	4.0	5.8	7.0	24.6
May 15	Dekalb DK493	177	5.3	8.0	9.1	43.2
May 15	Dekalb DK493	182	7.0	9.6	11.6	69.4
May 15	Dekalb DK493	193	9.9	13.1	15.4	118.9
May 15	Dekalb DK493	200	11.4	14.0	16.4	171.0
May 15	Dekalb DK493	211	.	.	.	.
May 15	Dekalb DK493	239	19.6	19.6	19.6	279.4
May 15	NK PX9060	151	0.0	0.1	2.6	3.8
May 15	NK PX9060	161	2.0	3.4	4.3	8.0
May 15	NK PX9060	170	4.0	6.4	7.4	24.6
May 15	NK PX9060	177	5.2	8.2	9.3	40.6
May 15	NK PX9060	182	6.8	9.8	11.7	66.0
May 15	NK PX9060	193	9.7	13.0	15.0	119.9
May 15	NK PX9060	200	12.6	14.2	15.6	156.6
May 15	NK PX9060	211	.	.	.	.
May 15	NK PX9060	239	15.7	15.7	15.7	268.4

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Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 15	Pioneer 3394	151	0.0	0.0	2.0	2.5
May 15	Pioneer 3394	161	1.7	2.9	3.8	7.2
May 15	Pioneer 3394	170	3.8	5.3	6.6	23.7
May 15	Pioneer 3394	177	5.0	7.6	8.6	37.3
May 15	Pioneer 3394	182	6.4	8.7	10.0	67.7
May 15	Pioneer 3394	193	9.3	12.9	14.7	106.7
May 15	Pioneer 3394	200	12.2	14.9	16.4	168.5
May 15	Pioneer 3394	211	.	.	.	.
May 15	Pioneer 3394	239	18.0	18.0	18.0	287.9
May 15	Pioneer 3845	151	0.7	0.8	2.9	3.8
May 15	Pioneer 3845	161	2.3	4.1	5.1	9.7
May 15	Pioneer 3845	170	4.7	6.6	7.8	33.9
May 15	Pioneer 3845	177	5.5	8.1	9.4	50.8
May 15	Pioneer 3845	182	7.2	10.2	12.0	69.9
May 15	Pioneer 3845	193	10.0	13.6	15.4	131.1
May 15	Pioneer 3845	200	12.6	14.7	16.6	165.1
May 15	Pioneer 3845	211	.	.	.	.
May 15	Pioneer 3845	239	18.3	18.3	18.3	261.5
May 20	Dekalb DK493	151	.	.	.	.
May 20	Dekalb DK493	161	1.0	1.3	2.9	5.1
May 20	Dekalb DK493	170	3.0	4.0	5.2	17.8
May 20	Dekalb DK493	177	4.1	6.6	7.6	34.7
May 20	Dekalb DK493	182	6.3	8.3	10.1	56.7
May 20	Dekalb DK493	193	8.7	12.1	14.0	101.6
May 20	Dekalb DK493	200	11.3	13.6	16.2	149.9
May 20	Dekalb DK493	211	.	.	.	.
May 20	Dekalb DK493	239	19.8	19.8	19.8	281.1
May 20	NK PX9060	151	.	.	.	.
May 20	NK PX9060	161	1.0	2.3	3.0	4.2
May 20	NK PX9060	170	2.7	4.9	5.9	16.9
May 20	NK PX9060	177	4.6	6.9	8.0	30.5
May 20	NK PX9060	182	6.3	9.2	10.9	50.4
May 20	NK PX9060	193	9.4	12.9	14.7	109.7
May 20	NK PX9060	200	11.7	14.0	16.0	140.6
May 20	NK PX9060	211	.	.	.	.
May 20	NK PX9060	239	16.0	16.0	16.0	278.6
May 20	Pioneer 3394	151	.	.	.	.
May 20	Pioneer 3394	161	1.0	1.0	2.8	3.0
May 20	Pioneer 3394	170	3.0	4.0	5.0	17.8
May 20	Pioneer 3394	177	4.2	6.2	7.2	29.6
May 20	Pioneer 3394	182	6.0	8.2	9.8	48.3
May 20	Pioneer 3394	193	9.2	13.0	14.8	93.5
May 20	Pioneer 3394	200	10.3	13.4	15.7	151.6
May 20	Pioneer 3394	211	.	.	.	.
May 20	Pioneer 3394	239	18.2	18.2	18.2	289.6

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Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 20	Pioneer 3845	151	.	.	.	.
May 20	Pioneer 3845	161	1.0	2.4	3.4	5.1
May 20	Pioneer 3845	170	3.1	5.1	6.1	22.9
May 20	Pioneer 3845	177	4.9	7.4	8.4	39.8
May 20	Pioneer 3845	182	6.3	8.4	10.1	64.4
May 20	Pioneer 3845	193	9.9	13.1	15.3	130.1
May 20	Pioneer 3845	200	11.8	14.2	16.1	149.9
May 20	Pioneer 3845	211	.	.	.	.
May 20	Pioneer 3845	239	18.0	18.0	18.0	293.0
May 30	Dekalb DK493	151	.	.	.	.
May 30	Dekalb DK493	161	.	.	.	.
May 30	Dekalb DK493	170	2.0	3.3	4.2	10.6
May 30	Dekalb DK493	177	4.0	5.8	6.8	23.7
May 30	Dekalb DK493	182	5.1	7.4	9.2	44.5
May 30	Dekalb DK493	193	7.8	10.8	13.3	104.7
May 30	Dekalb DK493	200	10.0	12.9	14.9	148.2
May 30	Dekalb DK493	211	13.3	14.4	16.8	202.4
May 30	Dekalb DK493	239	18.7	18.7	18.7	284.5
May 30	NK PX9060	151	.	.	.	.
May 30	NK PX9060	161	.	.	.	.
May 30	NK PX9060	170	2.0	4.0	5.0	11.0
May 30	NK PX9060	177	3.8	5.7	6.7	24.6
May 30	NK PX9060	182	5.2	7.9	9.2	45.7
May 30	NK PX9060	193	8.2	12.0	13.8	75.2
May 30	NK PX9060	200	10.0	12.9	14.4	138.9
May 30	NK PX9060	211	14.0	14.9	15.6	202.4
May 30	NK PX9060	239	15.2	15.2	15.2	280.3
May 30	Pioneer 3394	151	.	.	.	.
May 30	Pioneer 3394	161	.	.	.	.
May 30	Pioneer 3394	170	2.0	3.0	4.0	10.6
May 30	Pioneer 3394	177	3.6	5.1	6.3	22.9
May 30	Pioneer 3394	182	4.4	6.6	8.2	40.2
May 30	Pioneer 3394	193	8.7	11.8	13.3	90.4
May 30	Pioneer 3394	200	8.9	12.4	14.7	134.6
May 30	Pioneer 3394	211	12.7	13.9	16.0	199.8
May 30	Pioneer 3394	239	18.9	18.9	18.9	293.0
May 30	Pioneer 3845	151	.	.	.	.
May 30	Pioneer 3845	161	.	.	.	.
May 30	Pioneer 3845	170	2.1	4.0	5.0	12.7
May 30	Pioneer 3845	177	4.0	5.8	6.8	28.8
May 30	Pioneer 3845	182	5.0	7.2	9.0	46.6
May 30	Pioneer 3845	193	7.6	11.1	13.6	97.5
May 30	Pioneer 3845	200	10.0	12.7	14.9	154.9
May 30	Pioneer 3845	211	14.2	14.9	16.4	230.3
May 30	Pioneer 3845	239	17.9	17.9	17.9	283.6

**Table E-12. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1996.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
June 13	Dekalb DK493	151	.	.	.	.
June 13	Dekalb DK493	161	.	.	.	.
June 13	Dekalb DK493	170	.	.	.	.
June 13	Dekalb DK493	177	.	.	.	.
June 13	Dekalb DK493	182	3.4	5.4	6.4	16.9
June 13	Dekalb DK493	193	5.4	8.7	10.3	50.8
June 13	Dekalb DK493	200	7.3	11.1	13.2	91.4
June 13	Dekalb DK493	211	10.6	13.1	15.8	165.1
June 13	Dekalb DK493	239	18.7	18.7	18.7	260.6
June 13	NK PX9060	151	.	.	.	.
June 13	NK PX9060	161	.	.	.	.
June 13	NK PX9060	170	.	.	.	.
June 13	NK PX9060	177	.	.	.	.
June 13	NK PX9060	182	3.9	5.9	7.2	22.0
June 13	NK PX9060	193	5.7	9.0	11.0	54.9
June 13	NK PX9060	200	9.4	12.2	14.3	103.3
June 13	NK PX9060	211	11.2	12.9	14.9	194.7
June 13	NK PX9060	239	15.2	15.2	15.2	284.5
June 13	Pioneer 3394	151	.	.	.	.
June 13	Pioneer 3394	161	.	.	.	.
June 13	Pioneer 3394	170	.	.	.	.
June 13	Pioneer 3394	177	.	.	.	.
June 13	Pioneer 3394	182	3.2	4.8	6.1	16.9
June 13	Pioneer 3394	193	5.4	7.7	9.8	81.3
June 13	Pioneer 3394	200	8.0	11.0	13.2	88.1
June 13	Pioneer 3394	211	10.2	13.1	15.4	146.5
June 13	Pioneer 3394	239	18.6	18.6	18.6	287.0
June 13	Pioneer 3845	151	.	.	.	.
June 13	Pioneer 3845	161	.	.	.	.
June 13	Pioneer 3845	170	.	.	.	.
June 13	Pioneer 3845	177	.	.	.	.
June 13	Pioneer 3845	182	4.1	5.9	7.1	22.0
June 13	Pioneer 3845	193	5.6	8.9	10.6	67.1
June 13	Pioneer 3845	200	7.9	11.1	13.1	123.6
June 13	Pioneer 3845	211	11.7	13.2	15.8	195.6
June 13	Pioneer 3845	239	18.2	18.2	18.2	274.2

**Table E-12. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1996.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Mean		.	7.9	9.7	11.1	99.7
<b><u>Probability %</u></b>						
Date of Planting (D)			< 0.1	< 0.1	< 0.1	< 0.1
Hybrid (H)			< 0.1	< 0.1	< 0.1	< 0.1
D x H			8.7	21.6	24.3	46.4
Days (T)			< 0.1	< 0.1	< 0.1	< 0.1
D x T			< 0.1	< 0.1	< 0.1	< 0.1
H x T			< 0.1	< 0.1	< 0.1	< 0.1
D x H x T			> 50	10.9	5.9	35.0
<b><u>LSD (0.10)</u></b>						
Date of Planting (D)			0.4	0.4	0.4	5.4
Hybrid (H)			0.1	0.1	0.2	3.5
Days (T)			0.2	0.2	0.1	6.5
<b><u>CV %</u></b>						
			8.0	7.3	6.7	23.6

**Table E-13. Determining Corn Hybrid Maturity.  
Date of Planting by Hybrid - Harvest Data.  
Arlington, WI - 1996.**

Planting Date	Hybrid	Broken		Yield
		Stalks	Moisture	
		%	%	bu/a
April 26		3.2	25.2	178.3
May 1		2.8	25.4	168.7
May 15		3.4	26.3	160.5
May 20		3.6	26.6	172.6
May 30		4.6	25.7	140.8
June 13		3.9	30.3	140.9
	Dekalb DK493	3.4	26.8	175.2
	NK PX9060	4.4	22.3	147.6
	Pioneer 3394	3.2	32.3	154.3
	Pioneer 3845	3.3	24.8	164.0
April 26	Dekalb DK493	5.6	23.5	195.7
April 26	NK PX9060	2.8	20.8	154.2
April 26	Pioneer 3394	2.4	28.7	176.8
April 26	Pioneer 3845	1.9	27.9	186.3
May 1	Dekalb DK493	4.2	25.2	179.0
May 1	NK PX9060	1.4	21.7	154.8
May 1	Pioneer 3394	2.8	30.9	159.0
May 1	Pioneer 3845	2.8	23.9	181.8
May 15	Dekalb DK493	2.4	25.6	195.3
May 15	NK PX9060	4.7	22.6	133.4
May 15	Pioneer 3394	4.2	33.5	151.5
May 15	Pioneer 3845	2.4	23.4	162.0
May 20	Dekalb DK493	0.9	27.0	183.9
May 20	NK PX9060	3.8	21.8	167.3
May 20	Pioneer 3394	5.6	32.8	168.2
May 20	Pioneer 3845	4.2	24.6	171.2
May 30	Dekalb DK493	3.8	26.5	157.2
May 30	NK PX9060	8.9	22.5	135.1
May 30	Pioneer 3394	1.9	31.0	136.5
May 30	Pioneer 3845	3.8	22.8	134.6
June 13	Dekalb DK493	3.8	33.0	140.2
June 13	NK PX9060	4.7	24.6	140.9
June 13	Pioneer 3394	2.4	37.1	134.1
June 13	Pioneer 3845	4.7	26.3	148.2
Mean		3.6	26.6	160.3
<b>Probability %</b>				
Date of Planting (DOP)		> 50	1.6	0.1
Hybrid (H)		24.9	< 0.1	< 0.1
DOP x H		0.4	0.3	> 50
<b>LSD (0.10)</b>				
Date of Planting (DOP)		NS	2.2	12.9
Hybrid (H)		NS	1.0	10.5
<b>CV %</b>		53.7	6.9	11.7

## FIELD EXPERIMENT HISTORY

Title: Silage Date of Planting by Hybrid Study.

Year: 1996

Personnel: J.G. Lauer, K.D.Hudelson

Location: Arlington Research Station, Arlington, WI

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### FIELD INFORMATION

Field: 410

Soil Type: Plano Silt Loam

Soil Test Results: Test Date: 10/95 pH: 6.8 P (ppm): 76 K (ppm): 215 OM (%): 3.3

Fertilizer Applied: (lbs/a): 150 N Analysis: 46-0-0 (preplant)  
(lbs/a): 150 Total Analysis: 6-24-24 (starter)

Tillage Operations: Chisel Plow, Field Cultivate(2x)  
Field Cultivate before each planting

Previous Crop: Soybean

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### EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split plot

Replicates: 3

Variables: 4 Planting Dates  
3 Hybrids

Plot Size: Planted: 10' (4 rows) by 25'  
Harvested: 1 row by 22'  
Row Spacing: 30"  
Planting Rate: 28,000 seeds/a

Hybrids: Pioneer 3417  
Pioneer 3751  
Pioneer 3921

Planting: May 15  
May 30  
June 24  
July 12  
Equipment: 4-row Kinze plot planter

Harvesting: Sept. 30: P3751 & P3921 from DOP 1, and P3769 from DOP 2  
Oct. 10: all remaining plots  
Equipment: Hand harvest

	<u>Material</u>	<u>Rate/A</u>	<u>Method</u>
Herbicides/ Weed Control:	Bladex 4L/Lasso	2qt/2qt	preplant

Note: July 12 DOP was lost due to severe gopher damage to seed just after planting.

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Results: Table E-40.

**Table E-40. Silage Date of Planting by Hybrid Study.  
Arlington, WI 1996.**

Date of Planting	Hybrid	Final Stand plants/a	Kernel Harvest Stage % Milk	Moisture			Yield		
				Whole Plant	Stover	Grain	Whole Plant	Stover	Grain
				%			tons DM/a		
May 15		31416	37	58.2	67.1	35.2	8.0	3.6	4.4
May 30		31504	42	59.2	67.6	42.1	6.9	3.1	3.8
June 24		33616	73	69.9	71.2	53.4	6.2	4.2	2.3
	P3417	32824	53	64.5	66.0	45.4	6.1	3.2	3.3
	P3751	33088	59	63.3	70.9	47.1	7.7	3.9	3.8
	P3921	30624	33	59.6	67.2	35.5	7.0	3.5	3.6
May 15	P3417	32208	50	59.3	66.7	42.9	6.2	3.0	3.2
May 30	P3417	32472	55	60.5	65.4	47.9	6.7	3.3	3.4
June 24	P3417	33792	.	73.7	.	.	5.1	.	.
May 15	P3751	30360	52	61.3	72.5	41.2	8.7	3.7	5.0
May 30	P3751	31416	33	57.9	69.0	42.0	7.4	3.0	4.4
June 24	P3751	37488	92	70.7	71.1	58.2	7.1	5.1	2.0
May 15	P3921	31680	8	54.0	62.0	21.6	8.5	4.0	4.5
May 30	P3921	30624	38	59.4	68.3	36.4	6.7	3.1	3.6
June 24	P3921	29568	53	65.4	71.3	48.6	5.9	3.3	2.6
Mean		32179	48	62.4	68.3	42.4	7.0	3.6	3.6
<b>Probability (%)</b>									
Date of Planting (DOP)		> 50	0.4	< 0.1	24.7	0.8	8.1	6.6	0.6
Hybrid (H)		6.0	< 0.1	< 0.1	0.2	0.2	8.4	30.5	3.4
DOP x H		2.9	1.2	0.7	< 0.1	32.7	> 50	8.6	21.9
<b>LSD (0.10)</b>									
Date of Planting (DOP)		NS	11	1.6	NS	6.8	0.9	0.6	0.6
Hybrid (H)		1799	9	1.6	1.6	6.2	1.1	NS	0.7
<b>CV %</b>									
		6.7	22.3	3.0	2.5	15.3	18.2	21.0	18.5

Note - treatments without stover or grain yield and moisture data had no ear pollination.