

## FIELD EXPERIMENT HISTORY

**Title:** Determining Corn Hybrid Maturity - Date of Planting by Hybrid. **Year:** 1995  
**Personnel:** J.G. Lauer, K.D. Hudelson  
**Location:** Arlington Research Station, Arlington, WI  
**Supported by:** Hatch

---

---

### FIELD INFORMATION

Field: 406  
Soil Type: Plano Silt Loam  
Soil Test Results: Test Date: 10/95    pH: 6.4    P (ppm): 47    K (ppm): 185    OM (%): 3.4  
Fertilizer: Each Planting Date: 150 lbs/a 6-24-24 starter  
April 28 - 150 lbs N/a 46-0-0  
Tillage Operations: Chisel Plow, Field Cultivate(2x)  
Field Cultivate before each planting  
Previous Crop: Soybean  
Irrigation: None

---

---

### EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split Plot  
Replicates: 4  
Variables: A: Date of Planting, B: Hybrid  
Date of Planting: 20-Apr  
1-May  
15-May  
19-May  
30-May  
9-Jun  
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: Oct. 12  
Harvesting Equip: Almaco Plot Combine  

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

---

---

Results: Tables E-7 and E-8.

**Table E-8. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Harvest Data  
Arlington, WI - 1995.**

Planting Date	Hybrid	Days to Silk	Broken Stalks %	Moisture %	Yield bu/a
April 20		90.3	3.7	17.2	155.8
May 1		80.4	3.6	17.1	152.6
May 15		69.8	3.3	17.7	151.9
May 19		66.4	2.9	18.7	150.4
May 30		59.4	3.8	19.7	145.3
June 9		57.4	3.7	22.7	105.4
	Northrup King 9060	65.4	6.5	14.6	108.7
	Pioneer 3845	70.2	2.2	17.9	144.7
	Dekalb DK493	71.4	3.5	19.4	161.9
	Pioneer 3394	75.5	1.7	23.7	169.7
April 20	Northrup King 9060	85.3	7.6	14.3	106.5
April 20	Pioneer 3845	89.3	1.4	16.4	160.0
April 20	Dekalb DK493	90.8	3.1	16.0	172.6
April 20	Pioneer 3394	95.8	2.8	21.9	184.3
May 1	Northrup King 9060	74.8	6.9	14.1	115.1
May 1	Pioneer 3845	80.5	1.7	17.0	146.8
May 1	Dekalb DK493	81.0	3.5	16.6	172.0
May 1	Pioneer 3394	85.5	2.1	20.8	176.6
May 15	Northrup King 9060	64.8	4.2	14.7	115.4
May 15	Pioneer 3845	68.8	3.5	16.5	152.0
May 15	Dekalb DK493	71.0	3.8	17.4	170.4
May 15	Pioneer 3394	74.5	1.7	22.2	169.6
May 19	Northrup King 9060	60.8	4.2	14.3	108.5
May 19	Pioneer 3845	65.3	1.7	17.3	158.2
May 19	Dekalb DK493	68.3	3.8	18.4	164.8
May 19	Pioneer 3394	71.3	1.7	24.9	170.0
May 30	Northrup King 9060	55.8	6.3	14.6	114.9
May 30	Pioneer 3845	58.0	2.4	17.2	152.8
May 30	Dekalb DK493	60.0	4.9	18.5	165.5
May 30	Pioneer 3394	64.0	1.7	28.5	148.1
June 9	Northrup King 9060	51.0	10.1	15.4	91.8
June 9	Pioneer 3845	59.3	2.4	23.0	98.4
June 9	Dekalb DK493	57.5	2.1	29.9	125.8
June 9	Pioneer 3394	61.8	0.0	-	-
Mean		70.6	3.5	18.7	145.2
<b>Probability %</b>					
Date of Planting (DOP)		< 0.1	> 50	< 0.1	< 0.1
Hybrid (H)		< 0.1	< 0.1	< 0.1	< 0.1
DOP x H		2.7	34.5	< 0.1	1.7
<b>LSD (0.10)</b>					
Date of Planting (DOP)		0.8	NS	1.1	7.8
Hybrid (H)		0.7	1.4	0.5	6.1
<b>CV %</b>					
		2.0	80.7	6.0	8.7

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 20			10.7	11.5	13.4	121.3
May 1			10.5	11.4	13.2	116.6
May 15			9.5	10.3	12.2	109.6
May 19			9.0	9.9	11.7	105.4
May 30			9.0	10.0	11.8	107.8
June 9			8.7	10.1	12.0	111.2
	Northrup King 9060		9.2	10.4	11.9	107.0
	Pioneer 3845		9.8	10.8	12.5	116.9
	Dekalb DK493		9.9	10.6	12.7	110.3
	Pioneer 3394		9.7	10.4	12.6	114.2
April 20	Northrup King 9060		10.2	11.4	12.8	115.3
April 20	Pioneer 3845		10.8	11.8	13.6	129.7
April 20	Dekalb DK493		10.9	11.6	13.6	117.9
April 20	Pioneer 3394		10.8	11.5	13.8	122.4
May 1	Northrup King 9060		10.2	11.3	12.8	112.1
May 1	Pioneer 3845		10.5	11.4	13.1	117.7
May 1	Dekalb DK493		10.8	11.5	13.5	113.5
May 1	Pioneer 3394		10.7	11.3	13.5	123.1
May 15	Northrup King 9060		8.6	9.7	11.2	99.2
May 15	Pioneer 3845		9.8	10.7	12.4	115.7
May 15	Dekalb DK493		9.9	10.5	12.7	108.1
May 15	Pioneer 3394		9.7	10.4	12.5	115.2
May 19	Northrup King 9060		8.7	9.9	11.3	100.6
May 19	Pioneer 3845		9.2	10.2	11.8	110.8
May 19	Dekalb DK493		9.1	9.8	11.8	104.8
May 19	Pioneer 3394		9.1	9.7	11.8	105.6
May 30	Northrup King 9060		8.7	10.0	11.5	106.3
May 30	Pioneer 3845		9.2	10.2	11.9	111.6
May 30	Dekalb DK493		9.3	10.0	12.0	106.6
May 30	Pioneer 3394		8.9	9.7	11.8	106.9
June 9	Northrup King 9060		8.6	10.2	11.7	109.5
June 9	Pioneer 3845		8.9	10.2	12.0	114.8
June 9	Dekalb DK493		8.9	10.3	12.3	110.8
June 9	Pioneer 3394		8.4	9.7	11.8	109.8
		153	1.7	2.2	4.0	7.8
		158	2.6	3.5	5.2	13.1
		165	3.9	5.0	7.0	22.2
		174	5.7	7.0	9.7	48.4
		181	8.2	9.7	12.9	85.4
		188	10.0	11.8	14.8	108.7
		198	14.6	15.5	17.1	185.1
		206	17.2	17.5	18.0	205.3
		213	18.3	18.3	18.5	266.8

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 20		153	2.8	3.7	5.2	10.8
April 20		158	4.0	5.3	7.2	20.8
April 20		165	5.1	6.7	9.0	32.3
April 20		174	7.5	8.9	12.4	71.8
April 20		181	10.3	11.4	15.2	128.5
April 20		188	12.3	13.7	16.7	146.0
April 20		198	17.0	17.3	18.2	206.1
April 20		206	18.6	18.6	18.6	208.2
April 20		213	18.7	18.7	18.7	267.6
May 1		153	2.4	3.4	4.8	9.6
May 1		158	3.8	4.8	6.5	17.7
May 1		165	5.0	6.4	8.6	28.6
May 1		174	7.3	8.6	11.9	65.9
May 1		181	10.0	11.2	14.9	115.8
May 1		188	11.9	13.4	16.5	133.2
May 1		198	17.1	17.2	18.1	201.6
May 1		206	18.8	18.8	18.9	208.1
May 1		213	18.9	18.9	18.9	269.0
May 15		153	1.1	1.4	3.3	6.3
May 15		158	2.5	3.6	5.1	12.4
May 15		165	3.9	4.9	6.8	20.1
May 15		174	6.3	7.5	10.4	52.4
May 15		181	8.9	10.4	14.0	91.9
May 15		188	10.7	12.5	15.7	117.3
May 15		198	15.9	16.3	17.8	197.9
May 15		206	18.3	18.3	18.5	211.8
May 15		213	18.9	18.9	18.9	275.9
May 19		153	0.7	0.5	2.6	4.4
May 19		158	2.0	3.3	4.5	10.8
May 19		165	3.3	4.2	6.1	18.5
May 19		174	5.7	7.3	9.7	48.9
May 19		181	8.2	9.8	13.1	81.3
May 19		188	10.0	12.0	15.2	110.6
May 19		198	15.0	15.7	17.2	191.9
May 19		206	17.8	17.8	18.1	209.1
May 19		213	18.7	18.7	18.7	273.5

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 30		153	-	-	-	-
May 30		158	0.8	0.6	2.6	3.9
May 30		165	2.0	2.9	4.6	11.6
May 30		174	4.9	6.4	8.5	34.5
May 30		181	7.2	9.1	12.1	60.3
May 30		188	8.9	10.9	14.1	91.3
May 30		198	13.4	14.6	16.7	181.3
May 30		206	16.8	17.0	17.7	211.6
May 30		213	18.5	18.5	18.6	268.2
June 9		153	-	-	-	-
June 9		158	-	-	-	-
June 9		165	-	-	-	-
June 9		174	2.7	3.2	5.0	17.3
June 9		181	4.9	6.6	8.4	34.6
June 9		188	6.3	8.3	10.6	53.8
June 9		198	9.5	11.9	14.2	131.6
June 9		206	12.8	14.3	16.2	183.3
June 9		213	16.2	16.4	17.5	246.8
	Northrup King 9060	153	1.8	2.4	4.1	7.6
	Northrup King 9060	158	2.6	3.9	5.4	13.3
	Northrup King 9060	165	3.9	5.4	7.3	22.3
	Northrup King 9060	174	5.8	7.9	10.2	47.5
	Northrup King 9060	181	8.3	10.9	13.2	85.3
	Northrup King 9060	188	10.3	12.2	14.7	110.2
	Northrup King 9060	198	14.5	15.2	15.9	175.8
	Northrup King 9060	206	15.8	16.0	16.2	187.8
	Northrup King 9060	213	16.2	16.2	16.2	250.6
	Pioneer 3845	153	1.8	2.6	4.3	8.6
	Pioneer 3845	158	2.7	3.7	5.4	14.4
	Pioneer 3845	165	3.9	5.2	7.1	23.6
	Pioneer 3845	174	5.7	7.1	9.5	52.1
	Pioneer 3845	181	8.2	9.9	12.9	92.2
	Pioneer 3845	188	10.0	11.8	14.9	113.4
	Pioneer 3845	198	15.3	16.0	17.4	192.2
	Pioneer 3845	206	17.5	17.7	18.0	210.0
	Pioneer 3845	213	18.2	18.2	18.3	277.3
	Dekalb DK493	153	1.4	1.9	3.5	7.4
	Dekalb DK493	158	2.6	3.1	4.8	11.8
	Dekalb DK493	165	3.8	4.6	6.7	20.7
	Dekalb DK493	174	5.6	6.5	9.5	44.5
	Dekalb DK493	181	8.3	9.5	13.0	75.8
	Dekalb DK493	188	10.1	11.9	15.1	99.7
	Dekalb DK493	198	14.8	15.7	17.6	185.3
	Dekalb DK493	206	18.1	18.5	19.0	209.5
	Dekalb DK493	213	19.3	19.3	19.6	272.5
	Pioneer 3394	153	1.7	2.1	4.0	7.6
	Pioneer 3394	158	2.6	3.5	5.2	13.1
	Pioneer 3394	165	3.9	4.9	7.0	22.4
	Pioneer 3394	174	5.8	6.5	9.4	49.7
	Pioneer 3394	181	8.2	8.6	12.6	88.3
	Pioneer 3394	188	9.8	11.4	14.5	111.4

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
	Pioneer 3394	198	13.9	15.1	17.2	187.0
	Pioneer 3394	206	17.3	17.7	18.7	214.0
	Pioneer 3394	213	19.2	19.4	19.8	266.8
April 20	Northrup King 9060	153	2.9	4.1	5.6	11.3
April 20	Northrup King 9060	158	4.1	5.8	7.4	22.0
April 20	Northrup King 9060	165	5.3	7.2	9.3	32.3
April 20	Northrup King 9060	174	7.8	10.5	13.5	75.5
April 20	Northrup King 9060	181	10.6	13.0	15.0	129.5
April 20	Northrup King 9060	188	12.9	13.8	16.0	147.3
April 20	Northrup King 9060	198	16.2	16.2	16.2	189.3
April 20	Northrup King 9060	206	16.3	16.3	16.3	189.3
April 20	Northrup King 9060	213	16.1	16.1	16.1	241.0
April 20	Pioneer 3845	153	2.9	4.1	5.4	13.0
April 20	Pioneer 3845	158	4.1	5.4	7.3	22.5
April 20	Pioneer 3845	165	5.1	6.8	9.3	35.0
April 20	Pioneer 3845	174	7.4	9.2	12.4	78.3
April 20	Pioneer 3845	181	10.3	11.8	15.1	141.3
April 20	Pioneer 3845	188	12.5	13.8	17.1	160.8
April 20	Pioneer 3845	198	18.2	18.3	18.8	219.3
April 20	Pioneer 3845	206	18.5	18.5	18.5	223.3
April 20	Pioneer 3845	213	18.6	18.6	18.6	274.3
April 20	Dekalb DK493	153	2.5	3.2	4.7	9.3
April 20	Dekalb DK493	158	4.0	4.8	6.8	19.3
April 20	Dekalb DK493	165	4.9	6.4	8.6	29.0
April 20	Dekalb DK493	174	7.4	8.1	11.8	64.3
April 20	Dekalb DK493	181	10.2	10.8	15.5	117.3
April 20	Dekalb DK493	188	12.1	13.8	17.0	134.0
April 20	Dekalb DK493	198	17.6	17.8	19.1	205.8
April 20	Dekalb DK493	206	19.6	19.6	19.6	210.8
April 20	Dekalb DK493	213	19.5	19.5	19.5	271.8
April 20	Pioneer 3394	153	2.7	3.3	5.0	9.8
April 20	Pioneer 3394	158	3.9	5.3	7.2	19.5
April 20	Pioneer 3394	165	5.1	6.3	8.8	33.0
April 20	Pioneer 3394	174	7.5	7.9	11.8	69.0
April 20	Pioneer 3394	181	9.9	10.0	15.1	126.0
April 20	Pioneer 3394	188	11.8	13.4	16.8	142.0

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
April 20	Pioneer 3394	198	16.3	16.8	18.8	210.0
April 20	Pioneer 3394	206	19.9	19.9	20.1	209.5
April 20	Pioneer 3394	213	20.3	20.3	20.3	283.3
May 1	Northrup King 9060	153	2.7	3.8	5.0	9.8
May 1	Northrup King 9060	158	3.9	5.3	6.9	18.5
May 1	Northrup King 9060	165	5.1	6.9	9.3	29.8
May 1	Northrup King 9060	174	7.6	10.2	12.9	68.8
May 1	Northrup King 9060	181	10.4	12.6	15.1	121.0
May 1	Northrup King 9060	188	12.7	13.7	16.1	143.5
May 1	Northrup King 9060	198	16.4	16.6	17.0	187.0
May 1	Northrup King 9060	206	17.0	17.0	17.0	187.0
May 1	Northrup King 9060	213	16.5	16.5	16.5	243.8
May 1	Pioneer 3845	153	2.3	3.5	5.0	9.8
May 1	Pioneer 3845	158	3.7	4.5	6.3	19.0
May 1	Pioneer 3845	165	4.8	6.2	8.1	26.8
May 1	Pioneer 3845	174	7.0	8.3	11.5	67.0
May 1	Pioneer 3845	181	9.7	11.3	14.7	120.3
May 1	Pioneer 3845	188	11.6	13.2	16.3	129.0
May 1	Pioneer 3845	198	18.2	18.2	18.3	200.5
May 1	Pioneer 3845	206	18.8	18.8	18.8	208.8
May 1	Pioneer 3845	213	18.7	18.7	18.7	278.5
May 1	Dekalb DK493	153	2.2	3.2	4.3	9.8
May 1	Dekalb DK493	158	3.6	4.7	6.3	15.5
May 1	Dekalb DK493	165	5.0	6.2	8.5	27.8
May 1	Dekalb DK493	174	7.2	7.8	11.8	59.8
May 1	Dekalb DK493	181	10.2	11.3	15.3	100.0
May 1	Dekalb DK493	188	11.9	13.6	17.0	120.0
May 1	Dekalb DK493	198	17.2	17.4	18.6	204.5
May 1	Dekalb DK493	206	19.8	19.8	19.8	214.0
May 1	Dekalb DK493	213	19.8	19.8	19.8	270.3
May 1	Pioneer 3394	153	2.3	2.9	4.9	9.3
May 1	Pioneer 3394	158	3.8	4.8	6.8	17.8
May 1	Pioneer 3394	165	5.0	6.2	8.6	30.0
May 1	Pioneer 3394	174	7.3	8.0	11.5	68.0
May 1	Pioneer 3394	181	9.8	9.8	14.7	122.0
May 1	Pioneer 3394	188	11.6	13.2	16.6	140.3
May 1	Pioneer 3394	198	16.5	16.7	18.6	214.3
May 1	Pioneer 3394	206	19.5	19.5	19.9	222.5
May 1	Pioneer 3394	213	20.3	20.3	20.3	283.5
May 15	Northrup King 9060	153	0.8	0.8	2.9	5.0
May 15	Northrup King 9060	158	2.1	3.8	4.9	10.8

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 15	Northrup King 9060	165	3.7	4.8	6.4	17.8
May 15	Northrup King 9060	174	6.1	7.8	10.3	44.0
May 15	Northrup King 9060	181	8.6	11.4	14.0	81.8
May 15	Northrup King 9060	188	10.6	12.7	15.4	111.8
May 15	Northrup King 9060	198	15.7	15.9	16.3	183.8
May 15	Northrup King 9060	206	15.9	15.9	15.9	187.0
May 15	Northrup King 9060	213	16.1	16.1	16.1	250.8
May 15	Pioneer 3845	153	1.4	2.3	3.9	7.3
May 15	Pioneer 3845	158	2.8	3.8	5.4	14.5
May 15	Pioneer 3845	165	4.1	5.6	7.3	23.5
May 15	Pioneer 3845	174	6.3	7.7	10.3	58.3
May 15	Pioneer 3845	181	8.9	10.6	14.3	105.0
May 15	Pioneer 3845	188	10.8	12.5	15.7	120.5
May 15	Pioneer 3845	198	16.8	17.0	18.3	207.8
May 15	Pioneer 3845	206	18.4	18.4	18.4	219.0
May 15	Pioneer 3845	213	18.4	18.4	18.4	285.5
May 15	Dekalb DK493	153	1.0	1.2	3.0	6.3
May 15	Dekalb DK493	158	2.5	3.0	4.8	11.0
May 15	Dekalb DK493	165	3.9	4.3	6.7	19.3
May 15	Dekalb DK493	174	6.4	7.4	10.8	50.5
May 15	Dekalb DK493	181	9.1	10.2	14.3	81.8
May 15	Dekalb DK493	188	11.0	12.7	16.3	111.5
May 15	Dekalb DK493	198	16.1	16.4	18.7	200.0
May 15	Dekalb DK493	206	20.3	20.3	20.3	208.8
May 15	Dekalb DK493	213	20.4	20.4	20.4	284.0
May 15	Pioneer 3394	153	1.0	1.4	3.4	6.8
May 15	Pioneer 3394	158	2.6	3.8	5.2	13.3
May 15	Pioneer 3394	165	4.0	4.8	6.8	20.0
May 15	Pioneer 3394	174	6.5	7.0	10.3	56.8
May 15	Pioneer 3394	181	9.0	9.3	13.5	99.0
May 15	Pioneer 3394	188	10.3	12.2	15.3	125.3
May 15	Pioneer 3394	198	15.0	16.0	18.2	200.3
May 15	Pioneer 3394	206	18.5	18.5	19.3	232.5
May 15	Pioneer 3394	213	20.3	20.3	20.3	283.3
May 19	Northrup King 9060	153	0.9	0.7	2.9	4.3
May 19	Northrup King 9060	158	2.0	3.7	4.8	11.5
May 19	Northrup King 9060	165	3.4	4.8	6.6	20.3
May 19	Northrup King 9060	174	5.8	8.3	10.7	47.8
May 19	Northrup King 9060	181	8.5	11.4	13.9	84.5
May 19	Northrup King 9060	188	10.4	12.7	15.3	115.0
May 19	Northrup King 9060	198	15.4	15.6	15.9	185.0
May 19	Northrup King 9060	206	15.8	15.8	15.8	186.3
May 19	Northrup King 9060	213	15.9	15.9	15.9	251.0
May 19	Pioneer 3845	153	0.8	0.6	2.8	4.5
May 19	Pioneer 3845	158	2.0	3.7	4.9	11.5
May 19	Pioneer 3845	165	3.3	4.3	6.0	19.0



**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 19	Pioneer 3845	174	5.8	7.6	9.6	53.3
May 19	Pioneer 3845	181	8.2	9.8	13.0	88.0
May 19	Pioneer 3845	188	9.9	12.1	15.3	116.3
May 19	Pioneer 3845	198	15.5	16.3	17.6	205.3
May 19	Pioneer 3845	206	18.7	18.7	18.7	213.0
May 19	Pioneer 3845	213	18.7	18.7	18.7	286.3
May 19	Dekalb DK493	153	0.0	0.0	2.0	4.3
May 19	Dekalb DK493	158	2.0	2.6	4.1	9.5
May 19	Dekalb DK493	165	3.0	3.6	5.7	17.0
May 19	Dekalb DK493	174	5.4	6.6	9.2	44.0
May 19	Dekalb DK493	181	8.0	9.3	12.7	70.8
May 19	Dekalb DK493	188	9.9	11.8	15.4	102.3
May 19	Dekalb DK493	198	14.8	15.6	17.7	194.0
May 19	Dekalb DK493	206	19.1	19.1	19.4	216.3
May 19	Dekalb DK493	213	19.8	19.8	19.8	284.8
May 19	Pioneer 3394	153	0.9	0.9	2.6	4.8
May 19	Pioneer 3394	158	2.0	3.1	4.4	10.8
May 19	Pioneer 3394	165	3.5	4.3	6.2	17.8
May 19	Pioneer 3394	174	5.8	6.6	9.5	50.5
May 19	Pioneer 3394	181	8.0	8.4	12.8	82.0
May 19	Pioneer 3394	188	9.8	11.3	14.8	108.8
May 19	Pioneer 3394	198	14.1	15.3	17.4	183.5
May 19	Pioneer 3394	206	17.6	17.6	18.6	220.8
May 19	Pioneer 3394	213	20.2	20.2	20.2	272.0
May 30	Northrup King 9060	153	-	-	-	-
May 30	Northrup King 9060	158	0.8	0.8	2.8	3.8
May 30	Northrup King 9060	165	2.0	3.5	4.9	11.3
May 30	Northrup King 9060	174	4.8	6.9	8.9	31.8
May 30	Northrup King 9060	181	7.2	10.1	12.8	62.0
May 30	Northrup King 9060	188	8.8	11.9	14.4	93.8
May 30	Northrup King 9060	198	14.0	14.5	15.9	180.5
May 30	Northrup King 9060	206	16.6	16.6	16.7	197.5
May 30	Northrup King 9060	213	16.5	16.5	16.5	269.5
May 30	Pioneer 3845	153	-	-	-	-
May 30	Pioneer 3845	158	0.9	0.8	2.9	4.3
May 30	Pioneer 3845	165	2.1	3.1	4.8	13.5
May 30	Pioneer 3845	174	5.0	6.7	8.4	37.3
May 30	Pioneer 3845	181	7.3	9.1	11.9	62.5

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
May 30	Pioneer 3845	188	9.0	11.1	14.3	97.0
May 30	Pioneer 3845	198	13.5	14.8	17.2	186.8
May 30	Pioneer 3845	206	17.8	17.8	17.8	204.5
May 30	Pioneer 3845	213	17.9	17.9	17.9	287.0
May 30	Dekalb DK493	153	-	-	-	-
May 30	Dekalb DK493	158	0.8	0.4	2.1	3.8
May 30	Dekalb DK493	165	2.0	2.3	4.1	10.3
May 30	Dekalb DK493	174	4.8	6.0	8.5	31.8
May 30	Dekalb DK493	181	7.2	8.8	12.0	51.0
May 30	Dekalb DK493	188	9.0	10.6	14.1	79.8
May 30	Dekalb DK493	198	13.4	14.8	17.3	175.3
May 30	Dekalb DK493	206	17.2	17.3	18.3	224.8
May 30	Dekalb DK493	213	19.9	19.9	19.9	276.5
May 30	Pioneer 3394	153	-	-	-	-
May 30	Pioneer 3394	158	0.7	0.4	2.4	4.0
May 30	Pioneer 3394	165	2.0	2.8	4.6	11.3
May 30	Pioneer 3394	174	5.0	6.0	8.2	37.3
May 30	Pioneer 3394	181	7.3	8.3	11.6	65.5
May 30	Pioneer 3394	188	8.8	10.2	13.5	94.8
May 30	Pioneer 3394	198	12.5	14.3	16.6	182.8
May 30	Pioneer 3394	206	15.8	16.5	18.0	219.8
May 30	Pioneer 3394	213	19.3	19.3	19.8	239.8
June 9	Northrup King 9060	153	-	-	-	-
June 9	Northrup King 9060	158	-	-	-	-
June 9	Northrup King 9060	165	-	-	-	-
June 9	Northrup King 9060	174	2.8	3.3	5.2	17.0
June 9	Northrup King 9060	181	4.8	6.9	8.5	32.8
June 9	Northrup King 9060	188	6.2	8.6	10.8	50.0
June 9	Northrup King 9060	198	9.5	12.3	14.3	129.5
June 9	Northrup King 9060	206	13.2	14.3	15.6	179.8
June 9	Northrup King 9060	213	16.1	16.1	16.1	247.8

**Table E-7. Determining Corn Hybrid Maturity - Date of Planting by Hybrid.  
Growth and Development  
Arlington, WI - 1995.**

Planting Date	Hybrid	Day of Year	Leaf Development			Plant Height cm
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
June 9	Pioneer 3845	153	-	-	-	-
June 9	Pioneer 3845	158	-	-	-	-
June 9	Pioneer 3845	165	-	-	-	-
June 9	Pioneer 3845	174	2.8	3.3	5.0	18.5
June 9	Pioneer 3845	181	5.0	7.0	8.8	36.0
June 9	Pioneer 3845	188	6.3	8.1	10.7	57.0
June 9	Pioneer 3845	198	9.5	11.7	14.3	133.5
June 9	Pioneer 3845	206	13.0	14.1	15.8	191.8
June 9	Pioneer 3845	213	16.9	17.0	17.5	252.3
June 9	Dekalb DK493	153	-	-	-	-
June 9	Dekalb DK493	158	-	-	-	-
June 9	Dekalb DK493	165	-	-	-	-
June 9	Dekalb DK493	174	2.6	2.8	5.0	17.0
June 9	Dekalb DK493	181	4.9	6.4	8.3	34.0
June 9	Dekalb DK493	188	6.6	8.6	10.8	50.8
June 9	Dekalb DK493	198	9.8	12.2	14.6	132.5
June 9	Dekalb DK493	206	13.0	14.9	16.9	182.8
June 9	Dekalb DK493	213	16.5	16.6	18.3	247.8
June 9	Pioneer 3394	153	-	-	-	-
June 9	Pioneer 3394	158	-	-	-	-
June 9	Pioneer 3394	165	-	-	-	-
June 9	Pioneer 3394	174	2.5	3.3	4.8	16.5
June 9	Pioneer 3394	181	5.0	5.9	8.0	35.5
June 9	Pioneer 3394	188	6.3	7.9	10.2	57.3
June 9	Pioneer 3394	198	9.3	11.3	13.8	131.0
June 9	Pioneer 3394	206	12.2	13.9	16.5	179.0
June 9	Pioneer 3394	213	15.1	15.9	17.8	239.3
Mean			9.6	10.6	12.4	112.1
<b>Probability %</b>						
Date of Planting (D)			< 0.1	< 0.1	< 0.1	< 0.1
Hybrid (H)			< 0.1	0.2	< 0.1	< 0.1
D x H			0.1	11.7	0.4	0.1
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			< 0.1	< 0.1	< 0.1	< 0.1
<b>LSD (0.10)</b>						
Date of Planting (D)			0.1	0.1	0.2	3.7
Hybrid (H)			0.1	0.2	0.2	1.9
Days (T)			0.1	0.1	0.1	1.9
<b>CV %</b>						
			5.7	6.0	4.8	7.0

## FIELD EXPERIMENT HISTORY

Title: Silage Date of Planting by Hybrid Study.

Year: 1995

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

Location: Arlington Research Station, Arlington, WI

---

---

### FIELD INFORMATION

Field: 406

Soil Type: Plano Silt Loam

Soil Test Results: Test Date: 10/95 pH: 6.4 P (ppm): 47 K (ppm): 185 OM (%): 3.4

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

---

---

### EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split plot

Replicates: 4

Variables: 4 Planting Dates  
3 Hybrids

Plot Size: Planted: 10' (4 rows) by 25'  
Harvested: 1 row by 18'  
Row Spacing: 30"  
Planting Rate: 28,000 seeds/a

Hybrids: Pioneer 3417  
Pioneer 3751  
Pioneer 3921

Planting: May 15  
June 1  
June 19  
July 10  
Equipment: 4-row Kinze plot planter

Harvesting: Sept. 23 (1st two planting dates) and Sept. 28 (last two planting dates)  
Equipment: Hand harvest

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

---

---

Results: Table E-35.

**Table E-35. Silage Date of Planting by Hybrid Study.  
Arlington, WI 1995.**

Date of Planting	Hybrid	Kernel		Moisture			Yield		
		Harvest Stage % Milk	Final Stand plants/a	Whole Plant	Stover %	Grain	Whole Plant	Stover tons DM/a	Grain
May 15		20	32159	49.9	62.6	32.8	7.0	2.8	4.2
June 1		20	30653	50.6	61.4	35.3	7.2	3.1	4.1
June 19		.	34418	66.8	.	.	5.1	.	.
July 10		.	34525	75.5	.	.	3.8	.	.
	P3417	50	34687	62.2	58.8	39.5	6.2	3.4	4.1
	P3751	30	32831	62.3	67.0	35.8	5.6	2.6	4.2
	P3921	10	31299	57.5	60.3	26.9	5.5	2.9	4.2
May 15	P3417	40	32267	52.8	60.3	40.4	7.9	3.4	4.5
June 1	P3417	30	31299	51.2	57.2	38.7	7.1	3.4	3.7
June 19	P3417	.	38075	68.8	.	.	5.9	.	.
July 10	P3417	.	37107	76.1	.	.	3.8	.	.
May 15	P3751	20	31299	52.5	66.5	33.1	6.3	2.3	3.9
June 1	P3751	20	30976	53.1	67.5	38.5	7.3	2.8	4.5
June 19	P3751	.	36139	67.6	.	.	5.5	.	.
July 10	P3751	.	32912	76.2	.	.	3.5	.	.
May 15	P3921	0	32912	44.4	61.0	25.0	6.8	2.6	4.4
June 1	P3921	0	29685	47.4	59.5	28.7	7.2	3.0	4.2
June 19	P3921	.	29040	64.0	.	.	3.9	.	.
July 10	P3921	.	33557	74.3	.	.	3.9	.	.
Mean			32939	60.7	62.0	34.0	5.7	2.9	4.2
<b>Probability (%)</b>									
Date of Planting (DOP)			41.4	< 0.1	27.7	31.1	< 0.1	7.9	> 50
Hybrid (H)			1.2	0.1	0.2	< 0.1	3.4	5.6	> 50
DOP x H			3.7	> 50	47.4	3.6	2.5	> 50	5.3
<b>LSD (0.10)</b>									
Date of Planting (DOP)			NS	2.1	NS	NS	0.7	0.3	NS
Hybrid (H)			1727	2.1	3.0	2.2	0.4	0.5	NS
<b>CV %</b>			7.4	4.9	4.5	5.9	10.7	17.4	9.2

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