

FIELD EXPERIMENT HISTORY

Exp. Number: 01 Maturity
Title: Determining Sweet Corn Maturity - Comparison of Hybrids **Year:** 1997
Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery, K.D. Hudelson and H.M. Darby
Supported by: Hatch

FIELD INFORMATION

Field: 427
Soil Type: Plano Silt Loam
Soil Test Results: Test Date: 4/95 pH: 6.7 P (ppm): 60 K (ppm): 170 OM (%): 4.0
Fertilizer: 23-April 150 lbs actual N/A of 46-0-0
20-May 150lbs/A of 6-24-24
Herbicide: Frontier 20oz/A Bladex 90DF 2.2lbs/A
Tillage Operations: None
Previous Crop: Soybean

EXPERIMENTAL PROCEDURE

Exp. Design: RCB
Replicates: 3
Variables: Varieties:
 Delectible How Sweet It Is Miracle
 Empire Incredible SS Jubilee
 Excellency Jubilee Zenith
 Golden 1703 Jump Start

Row Spacing: 30"
Area Planted: 5' x 25'
Planting Equip: Kinze Plot Planter w/seed cones
Planting Date: 20-May
Plant Population: Thinned to 28,000 plants/A

Results: Table E-8.

**Table E-8. Determining Sweet Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Day of Year	Leaf Development			Plant Height inches
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Empire		4.4	6.6	11.1	34.3
Delectible		4.3	6.3	10.3	32.3
Incredible		5.6	7.8	11.6	35.5
Jump Start		5.5	7.7	10.2	33.7
Golden 1703		4.9	7.3	11.1	33.0
How Sweet It Is		6.2	7.8	10.3	28.9
Jubilee		6.5	8.5	11.4	36.9
Excellency		7.1	8.8	11.6	35.6
Miracle		6.3	8.0	11.4	29.9
Zenith		7.2	8.9	11.8	32.4
SS Jubilee		6.0	7.6	10.5	31.1
	163	1.9	3.2	4.0	2.5
	176	4.2	6.2	7.6	9.5
	190	7.0	10.4	12.5	24.2
	207	14.2	14.5	15.5	59.7
	227			15.6	69.4
Empire	163	2.0	3.2	4.0	2.5
Delectible	163	2.0	3.0	3.7	2.5
Incredible	163	1.8	3.3	4.3	2.5
Jump Start	163	2.0	3.3	4.0	2.7
Golden 1703	163	2.0	3.5	4.3	2.8
How Sweet It Is	163	2.0	3.0	4.2	2.3
Jubilee	163	2.0	3.3	4.2	2.7
Excellency	163	1.8	2.8	3.5	2.3
Miracle	163	1.8	2.7	3.7	2.3
Zenith	163	2.0	3.3	4.0	2.7
SS Jubilee	163	1.7	3.2	4.0	2.5
Empire	176	4.3	6.3	7.8	10.7
Delectible	176	4.2	5.8	7.0	9.3
Incredible	176	4.5	6.7	8.3	11.3
Jump Start	176	4.2	6.2	7.5	11.0
Golden 1703	176	4.8	7.3	9.0	12.3
How Sweet It Is	176	3.8	5.5	6.5	5.3
Jubilee	176	4.3	7.0	8.0	10.7
Excellency	176	4.2	6.2	7.7	9.0
Miracle	176	4.2	5.8	7.5	8.7
Zenith	176	4.5	6.3	7.8	9.3
SS Jubilee	176	3.7	5.3	6.5	7.0

continued

**Table E-8. Determining Sweet Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Day of Year	Leaf Development			Plant Height inches
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Empire	190	7.0	10.3	13.0	25.3
Delectible	190	6.7	10.0	12.2	23.7
Incredible	190	7.3	11.0	13.0	26.7
Jump Start	190	7.0	11.0	12.5	26.7
Golden 1703	190	8.0	11.0	13.3	28.0
How Sweet It Is	190	6.0	9.0	10.8	18.0
Jubilee	190	7.0	10.8	12.8	26.3
Excellency	190	7.3	10.7	13.0	26.0
Miracle	190	7.3	10.8	12.8	23.0
Zenith	190	7.2	11.0	13.2	21.3
SS Jubilee	190	6.0	8.8	11.3	20.7
Empire	207			15.5	60.4
Delectible	207			14.5	57.7
Incredible	207	14.5	14.5	16.2	61.7
Jump Start	207	15.0	15.0	13.5	63.0
Golden 1703	207			14.5	59.7
How Sweet It Is	207	12.8	13.8	15.0	49.9
Jubilee	207	15.5	15.0	16.2	66.3
Excellency	207	15.0	15.3	16.7	70.2
Miracle	207	14.5	14.8	16.3	53.8
Zenith	207	15.0	15.0	17.0	58.4
SS Jubilee	207	12.5	13.2	15.3	55.1
Empire	227			15.3	72.8
Delectible	227			14.3	68.2
Incredible	227			16.3	75.5
Jump Start	227			13.7	65.0
Golden 1703	227			14.5	62.3
How Sweet It Is	227			15.2	68.9
Jubilee	227			15.7	78.7
Excellency	227			17.2	70.2
Miracle	227			16.5	61.7
Zenith	227			17.2	70.2
SS Jubilee	227			15.3	70.2
Mean		5.9	7.8	11.0	33.1
Probability(%)					
Day Of Year (D)		0.0	0.0	0.0	0.0
H x D		0.0	0.0	0.0	0.2
LSD(0.10)					
Day Of Year (D)		0.2	0.2	0.4	2.5
CV(%)		8	7	7	14

FIELD EXPERIMENT HISTORY

Exp. Number: 01 Maturity

Title: Determining Corn Hybrid Maturity - Comparison of Hybrids

Year: 1997

Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery, K.D. Hudelson and H.M. Darby

Supported by: Hatch

EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split Plot

Replicates: 3

Variables: Hybrids:

Cargill 809	Dekalb DK471	NK Brand N2409
Carhart's CX1100A	Dekalb DK493	Pioneer 3769
Dairyland ST-1407	Golden H2387	Pioneer 3905
Dekalb DK352	Golden H2441	Pioneer 3936
Dekalb DK401	Lemke SL65	

Row Spacing: 30"

Area Planted: 5' x 25'

Planting Equip: Kinze Plot Planter w/seed cones

Area Harvested: 5' x 22'

Harvest Equip: Kincaid Plot Combine - Grain

FIELD INFORMATION

Location	Cooperators	Soil Type	Previous Crop	Row Width (in)	Planting Date	Harvest Date	Tillage Operations	--Soil Test--			--Nitrogen Fertilizer--			Weed Control	Insecticides
								pH	P	K	actual (lb/a)	form	time		
Arlington	S.Kraak	Plano Silt Loam	Soybean	30	24-Apr	31-Oct	No-Till	6.7	60	170	150 9	28-0-0 6-24-24	preplant planting	Frontier 20oz/A 3ladex 90DF 2.2lbs/A	None
Lancaster	T. Wood D. Heimdahl	Rozetta Silt Loam	Corn	30	10-May		Chisel Plow Soil finisher	7.1	90	238	180	82-0-0	preplant	Dual II 1qt/A Exceed 1oz/A	Lorsban 7lbs/A
Janesville	B. Jaynes D. Nehring	Plano Silt Loam	Corn	30	6-May	18-Oct	Field Cult. Dyna Drive	6.6	37	180	160 9	28-0-0 6-24-24	preplant planting	Frontier 20oz/A Marksman 2.5pts/A	Lorsban 7lbs/A
Fond du Lac	M. Rankin	Virgil Silt Loam	Soybean	30	28-Apr	30-Oct	Moldboard Plow Field Cult.(2x)	7.2	27	110	160 9	82-0-0 6-24-24	preplant planting	Accent 0.67oz/A Exceed 0.88oz/A	None
Hancock Irrigated	J. Breuer C. Kostichk	Plainfield Sand	Peas	30	8-May	22-Oct	Dyna Drive Moldboard Plow Disk	6.3	58	90	200 9	33-0-0 6-24-24	post planting	Lasso 2qts/A Aatrex 4L 0.75qts/A	None

Results: Tables E-9 to E-17.

**Table E-9. Determining Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
						inches
Pioneer 3936	80		5.8	7.6	12.7	49.7
Cargill 809	80		5.8	7.4	12.7	51.4
Pioneer 3905	85		5.7	7.3	12.6	48.1
Dekalb DK352	85		6.1	7.7	12.7	48.9
NK Brand N2409	90		4.9	6.4	11.3	48.8
Dekalb DK401	90		6.2	7.9	12.1	47.3
Pioneer 3769	95		5.1	6.9	12.3	50.4
Dekalb DK471	95		8.3	9.6	12.9	48.4
Golden H2387	100		7.8	9.3	12.5	53.2
Dekalb DK493	100		8.1	9.4	12.8	49.8
Dairyland ST-1407	105		7.9	9.7	12.7	53.0
Golden H2441	105		8.7	10.0	13.2	50.5
Lemke SL65	110		7.0	8.1	11.3	52.8
Carhart's CX1100A	110		7.4	8.3	11.6	52.2
		154	1.1	1.9	3.3	2.4
		170	4.3	5.5	7.2	9.1
		190	10.1	13.2	15.5	46.4
		207	16.9	17.1	17.8	94.7
		220			18.1	99.0
Pioneer 3936	80	154	1.7	2.7	4.2	2.7
Cargill 809	80	154	1.3	2.2	3.8	2.7
Pioneer 3905	85	154	1.5	2.2	3.8	3.0
Dekalb DK352	85	154	1.7	2.8	4.0	2.8
NK Brand N2409	90	154	1.2	1.5	3.2	2.2
Dekalb DK401	90	154	1.2	1.8	3.5	2.2
Pioneer 3769	95	154	1.0	2.3	3.5	2.3
Dekalb DK471	95	154	0.8	1.7	2.8	2.3
Golden H2387	100	154	0.8	1.7	3.2	2.2
Dekalb DK493	100	154	1.0	1.5	3.0	2.3
Dairyland ST-1407	105	154	1.0	2.3	3.3	2.7
Golden H2441	105	154	1.5	2.5	3.7	2.3
Lemke SL65	110	154	0.5	0.8	2.3	1.8
Carhart's CX1100A	110	154	0.8	0.8	2.3	2.2
Pioneer 3936	80	170	4.8	6.0	8.2	10.5
Cargill 809	80	170	4.8	6.0	8.2	11.3
Pioneer 3905	85	170	4.5	5.8	8.0	10.7
Dekalb DK352	85	170	5.0	6.7	8.5	10.8

continued

**Table E-9. Determining Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development		Total Leaves	Plant Height
			Leaf Collars	Hail Adjuster's Method		
NK Brand N2409	90	170	4.0	5.2	6.3	9.2
Dekalb DK401	90	170	4.2	5.5	7.2	8.0
Pioneer 3769	95	170	4.2	5.3	7.2	8.7
Dekalb DK471	95	170	4.0	4.8	6.7	7.5
Golden H2387	100	170	4.3	6.2	7.5	8.3
Dekalb DK493	100	170	4.0	5.5	7.0	9.0
Dairyland ST-1407	105	170	4.0	5.7	7.0	8.7
Golden H2441	105	170	4.8	5.8	7.8	8.7
Lemke SL65	110	170	3.3	4.0	5.7	8.0
Carhart's CX1100A	110	170	3.8	4.2	5.8	7.8
Pioneer 3936	80	190	11.0	14.2	16.2	49.7
Cargill 809	80	190	11.2	14.2	16.3	55.7
Pioneer 3905	85	190	11.2	14.0	16.2	49.0
Dekalb DK352	85	190	11.5	13.7	15.7	50.0
NK Brand N2409	90	190	9.5	12.5	14.5	47.3
Dekalb DK401	90	190	9.7	13.2	15.0	40.7
Pioneer 3769	95	190	10.2	13.2	15.3	48.0
Dekalb DK471	95	190	10.2	13.8	16.3	41.3
Golden H2387	100	190	9.3	12.5	15.0	48.7
Dekalb DK493	100	190	10.0	13.2	15.8	43.3
Dairyland ST-1407	105	190	9.7	13.7	15.7	46.0
Golden H2441	105	190	10.5	13.5	16.0	42.3
Lemke SL65	110	190	8.8	11.8	14.0	42.3
Carhart's CX1100A	110	190	9.0	11.8	14.5	45.0
Pioneer 3936	80	207			17.5	91.2
Cargill 809	80	207			17.7	91.2
Pioneer 3905	85	207			17.5	88.6
Dekalb DK352	85	207			17.7	87.9
NK Brand N2409	90	207			16.3	91.9
Dekalb DK401	90	207	17.0	17.0	17.3	91.9
Pioneer 3769	95	207			17.7	93.2
Dekalb DK471	95	207	18.0	18.0	18.8	93.2
Golden H2387	100	207	16.7	16.8	18.2	105.0
Dekalb DK493	100	207	17.5	17.5	18.5	93.2
Dairyland ST-1407	105	207	17.0	17.2	18.5	101.0
Golden H2441	105	207	18.0	18.0	19.2	97.8
Lemke SL65	110	207	15.3	15.8	17.2	101.0
Carhart's CX1100A	110	207	15.8	16.2	17.2	99.1
Pioneer 3936	80	220			17.5	94.7
Cargill 809	80	220			17.7	96.3

continued

**Table E-9. Determining Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3905	85	220			17.7	89.3
Dekalb DK352	85	220			17.8	93.0
NK Brand N2409	90	220			16.3	93.7
Dekalb DK401	90	220			17.7	93.7
Pioneer 3769	95	220			17.7	100.0
Dekalb DK471	95	220			19.7	97.7
Golden H2387	100	220			18.5	101.7
Dekalb DK493	100	220			19.5	101.0
Dairyland ST-1407	105	220			19.0	106.7
Golden H2441	105	220			19.3	101.3
Lemke SL65	110	220			17.3	110.7
Carhart's CX1100A	110	220			18.0	107.0
Mean			6.9	8.4	12.4	50.3
<u>Probability(%)</u>						
Hybrid (H)			0.0	0.0	0.0	0.0
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			0.0	0.0	0.0	0.0
<u>LSD(0.10)</u>						
Hybrid (H)			0.4	0.5	0.4	1.7
Day Of Year (D)			0.2	0.3	0.2	1.9
<u>CV(%)</u>						
			10	9	5	5

Table E-10. Determining Corn Hybrid Maturity - Comparison of Hybrids
Fond du Lac, WI - 1997

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3936	80		5.3	7.5	11.5	38.3
Cargill 809	80		5.7	7.6	11.7	37.3
Pioneer 3905	85		5.8	8.0	11.8	37.6
Dekalb DK352	85		4.9	7.1	11.3	36.6
NK Brand N2409	90		6.0	8.2	12.3	40.9
Dekalb DK401	90		5.4	7.3	11.5	38.4
Pioneer 3769	95		5.3	7.6	11.4	38.7
Dekalb DK471	95		5.6	7.7	11.9	39.7
Golden H2387	100		5.7	7.8	12.0	37.0
Dekalb DK493	100		4.8	6.5	10.8	36.5
Dairyland ST-1407	105		5.4	7.3	11.5	36.0
Golden H2441	105		5.7	7.6	11.8	38.0
Lemke SL65	110		5.2	7.5	11.5	38.2
Carhart's CX1100A	110		5.4	7.3	11.8	37.8
		155	1.3	2.2	3.5	2.4
		175	5.9	8.0	9.8	15.2
		190	9.1	12.3	14.9	39.0
		227			18.3	95.1
Pioneer 3936	80	155	1.7	2.7	3.7	2.7
Cargill 809	80	155	1.5	2.0	3.7	2.5
Pioneer 3905	85	155	1.3	2.2	3.5	2.5
Dekalb DK352	85	155	1.0	2.3	3.5	2.3
NK Brand N2409	90	155	1.2	2.0	3.3	2.3
Dekalb DK401	90	155	0.8	2.0	3.2	2.0
Pioneer 3769	95	155	1.5	3.0	3.8	2.3
Dekalb DK471	95	155	1.8	2.8	4.0	2.8
Golden H2387	100	155	1.2	2.2	3.7	2.8
Dekalb DK493	100	155	1.3	1.7	3.3	2.5
Dairyland ST-1407	105	155	1.5	2.5	3.7	2.3
Golden H2441	105	155	0.8	1.3	2.8	2.2
Lemke SL65	110	155	1.3	2.5	3.5	2.5
Carhart's CX1100A	110	155	0.8	1.2	3.0	2.2
Pioneer 3936	80	175	5.7	7.7	9.5	14.7
Cargill 809	80	175	6.2	8.2	10.2	15.7
Pioneer 3905	85	175	6.2	8.5	10.2	15.5
Dekalb DK352	85	175	5.3	7.3	9.2	13.7
NK Brand N2409	90	175	6.7	9.0	10.8	18.3
Dekalb DK401	90	175	6.0	7.8	9.7	14.8
Pioneer 3769	95	175	5.8	7.5	9.3	15.0
Dekalb DK471	95	175	5.8	7.8	9.7	16.2
Golden H2387	100	175	6.5	8.5	10.3	15.3
Dekalb DK493	100	175	5.0	7.0	8.7	13.3

continued

Table E-10. Determining Corn Hybrid Maturity - Comparison of Hybrids
Fond du Lac, WI - 1997

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Dairyland ST-1407	105	175	5.8	7.8	9.8	13.7
Golden H2441	105	175	6.3	8.3	10.2	15.2
Lemke SL65	110	175	5.7	8.3	9.7	15.3
Carhart's CX1100A	110	175	5.8	8.3	10.0	16.0
Pioneer 3936	80	190	8.5	12.2	14.7	38.0
Cargill 809	80	190	9.3	12.5	15.2	39.3
Pioneer 3905	85	190	9.8	13.3	16.0	42.3
Dekalb DK352	85	190	8.5	11.7	14.2	33.3
NK Brand N2409	90	190	10.2	13.5	16.3	46.7
Dekalb DK401	90	190	9.3	12.0	14.7	42.3
Pioneer 3769	95	190	8.7	12.2	14.2	36.3
Dekalb DK471	95	190	9.2	12.5	15.0	38.7
Golden H2387	100	190	9.3	12.8	15.7	39.3
Dekalb DK493	100	190	8.0	10.8	13.3	34.3
Dairyland ST-1407	105	190	9.0	11.7	14.0	35.7
Golden H2441	105	190	10.0	13.2	15.7	41.3
Lemke SL65	110	190	8.5	11.7	14.2	36.7
Carhart's CX1100A	110	190	9.5	12.5	15.3	41.0
Pioneer 3936	80	227			18.3	97.8
Cargill 809	80	227			17.8	91.9
Pioneer 3905	85	227			17.7	89.9
Dekalb DK352	85	227			18.3	97.1
NK Brand N2409	90	227			18.7	96.5
Dekalb DK401	90	227			18.3	94.5
Pioneer 3769	95	227			18.2	101.0
Dekalb DK471	95	227			18.8	101.0
Golden H2387	100	227			18.3	90.6
Dekalb DK493	100	227			18.0	95.8
Dairyland ST-1407	105	227			18.3	92.5
Golden H2441	105	227			18.3	93.2
Lemke SL65	110	227			18.5	98.4
Carhart's CX1100A	110	227			18.7	91.9
Mean			5.4	7.5	11.6	37.9
<u>Probability(%)</u>						
Hybrid (H)			2.1	4.6	13.3	7.1
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			6.3	9.3	60.5	0.7
<u>LSD(0.10)</u>						
Hybrid (H)			0.5	0.6	0.7	2.3
Day Of Year (D)			0.6	0.7	0.7	3.5
<u>CV(%)</u>						
			13	12	8	9

Table E-10. Determining Corn Hybrid Maturity - Comparison of Hybrids
Fond du Lac, WI - 1997

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3936	80		5.3	7.5	11.5	38.3
Cargill 809	80		5.7	7.6	11.7	37.3
Pioneer 3905	85		5.8	8.0	11.8	37.6
Dekalb DK352	85		4.9	7.1	11.3	36.6
NK Brand N2409	90		6.0	8.2	12.3	40.9
Dekalb DK401	90		5.4	7.3	11.5	38.4
Pioneer 3769	95		5.3	7.6	11.4	38.7
Dekalb DK471	95		5.6	7.7	11.9	39.7
Golden H2387	100		5.7	7.8	12.0	37.0
Dekalb DK493	100		4.8	6.5	10.8	36.5
Dairyland ST-1407	105		5.4	7.3	11.5	36.0
Golden H2441	105		5.7	7.6	11.8	38.0
Lemke SL65	110		5.2	7.5	11.5	38.2
Carhart's CX1100A	110		5.4	7.3	11.8	37.8
		155	1.3	2.2	3.5	2.4
		175	5.9	8.0	9.8	15.2
		190	9.1	12.3	14.9	39.0
		227			18.3	95.1
Pioneer 3936	80	155	1.7	2.7	3.7	2.7
Cargill 809	80	155	1.5	2.0	3.7	2.5
Pioneer 3905	85	155	1.3	2.2	3.5	2.5
Dekalb DK352	85	155	1.0	2.3	3.5	2.3
NK Brand N2409	90	155	1.2	2.0	3.3	2.3
Dekalb DK401	90	155	0.8	2.0	3.2	2.0
Pioneer 3769	95	155	1.5	3.0	3.8	2.3
Dekalb DK471	95	155	1.8	2.8	4.0	2.8
Golden H2387	100	155	1.2	2.2	3.7	2.8
Dekalb DK493	100	155	1.3	1.7	3.3	2.5
Dairyland ST-1407	105	155	1.5	2.5	3.7	2.3
Golden H2441	105	155	0.8	1.3	2.8	2.2
Lemke SL65	110	155	1.3	2.5	3.5	2.5
Carhart's CX1100A	110	155	0.8	1.2	3.0	2.2
Pioneer 3936	80	175	5.7	7.7	9.5	14.7
Cargill 809	80	175	6.2	8.2	10.2	15.7
Pioneer 3905	85	175	6.2	8.5	10.2	15.5
Dekalb DK352	85	175	5.3	7.3	9.2	13.7
NK Brand N2409	90	175	6.7	9.0	10.8	18.3
Dekalb DK401	90	175	6.0	7.8	9.7	14.8
Pioneer 3769	95	175	5.8	7.5	9.3	15.0
Dekalb DK471	95	175	5.8	7.8	9.7	16.2
Golden H2387	100	175	6.5	8.5	10.3	15.3
Dekalb DK493	100	175	5.0	7.0	8.7	13.3

continued

Table E-10. Determining Corn Hybrid Maturity - Comparison of Hybrids
Fond du Lac, WI - 1997

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Dairyland ST-1407	105	175	5.8	7.8	9.8	13.7
Golden H2441	105	175	6.3	8.3	10.2	15.2
Lemke SL65	110	175	5.7	8.3	9.7	15.3
Carhart's CX1100A	110	175	5.8	8.3	10.0	16.0
Pioneer 3936	80	190	8.5	12.2	14.7	38.0
Cargill 809	80	190	9.3	12.5	15.2	39.3
Pioneer 3905	85	190	9.8	13.3	16.0	42.3
Dekalb DK352	85	190	8.5	11.7	14.2	33.3
NK Brand N2409	90	190	10.2	13.5	16.3	46.7
Dekalb DK401	90	190	9.3	12.0	14.7	42.3
Pioneer 3769	95	190	8.7	12.2	14.2	36.3
Dekalb DK471	95	190	9.2	12.5	15.0	38.7
Golden H2387	100	190	9.3	12.8	15.7	39.3
Dekalb DK493	100	190	8.0	10.8	13.3	34.3
Dairyland ST-1407	105	190	9.0	11.7	14.0	35.7
Golden H2441	105	190	10.0	13.2	15.7	41.3
Lemke SL65	110	190	8.5	11.7	14.2	36.7
Carhart's CX1100A	110	190	9.5	12.5	15.3	41.0
Pioneer 3936	80	227			18.3	97.8
Cargill 809	80	227			17.8	91.9
Pioneer 3905	85	227			17.7	89.9
Dekalb DK352	85	227			18.3	97.1
NK Brand N2409	90	227			18.7	96.5
Dekalb DK401	90	227			18.3	94.5
Pioneer 3769	95	227			18.2	101.0
Dekalb DK471	95	227			18.8	101.0
Golden H2387	100	227			18.3	90.6
Dekalb DK493	100	227			18.0	95.8
Dairyland ST-1407	105	227			18.3	92.5
Golden H2441	105	227			18.3	93.2
Lemke SL65	110	227			18.5	98.4
Carhart's CX1100A	110	227			18.7	91.9
Mean			5.4	7.5	11.6	37.9
<u>Probability(%)</u>						
Hybrid (H)			2.1	4.6	13.3	7.1
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			6.3	9.3	60.5	0.7
<u>LSD(0.10)</u>						
Hybrid (H)			0.5	0.6	0.7	2.3
Day Of Year (D)			0.6	0.7	0.7	3.5
<u>CV(%)</u>						
			13	12	8	9

**Table E-11. Determining Corn Hybrid Maturity - Comparison of Hybrids
Hancock, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3936	80		6.8	8.3	12.2	80.5
Cargill 809	80		6.6	8.2	13.4	80.8
Pioneer 3905	85		7.7	8.9	12.0	80.8
Dekalb DK352	85		7.7	9.3	12.3	85.5
NK Brand N2409	90		7.2	9.0	11.8	78.3
Dekalb DK401	90		7.4	9.3	12.4	86.4
Pioneer 3769	95		7.3	8.7	12.2	86.9
Dekalb DK471	95		7.4	8.9	12.5	86.0
Golden H2387	100		6.9	9.0	12.7	85.6
Dekalb DK493	100		7.2	8.8	12.4	86.2
Dairyland ST-1407	105		6.7	8.7	12.4	89.7
Golden H2441	105		6.7	8.7	12.3	86.3
Lemke SL65	110		6.0	7.8	11.3	87.9
Carhart's CX1100A	110		6.6	8.1	11.3	87.7
		155	1.9	3.3	4.0	2.4
		172	6.1	8.0	9.7	10.4
		199	13.5	15.3	17.0	77.9
		227			18.2	248.8
Pioneer 3936	80	155	2.0	3.7	4.7	2.3
Cargill 809	80	155	2.7	4.3	5.0	2.5
Pioneer 3905	85	155	2.0	3.3	4.0	2.2
Dekalb DK352	85	155	1.8	3.5	4.0	2.3
NK Brand N2409	90	155	2.0	3.3	4.0	2.7
Dekalb DK401	90	155	2.0	3.5	4.2	2.5
Pioneer 3769	95	155	1.7	3.0	4.0	2.3
Dekalb DK471	95	155	2.0	3.3	4.0	2.8
Golden H2387	100	155	2.0	3.7	4.2	2.3
Dekalb DK493	100	155	2.0	2.8	4.0	2.7
Dairyland ST-1407	105	155	1.7	3.2	4.0	2.5
Golden H2441	105	155	1.8	3.2	4.0	2.3
Lemke SL65	110	155	1.0	2.3	3.0	1.8
Carhart's CX1100A	110	155	1.8	3.0	3.3	2.3
Pioneer 3936	80	172	6.3	8.0	9.5	11.0
Cargill 809	80	172	7.0	8.8	10.8	12.0
Pioneer 3905	85	172	6.0	7.8	9.8	10.0
Dekalb DK352	85	172	6.7	8.3	10.2	11.0
NK Brand N2409	90	172	6.0	8.5	9.8	10.0
Dekalb DK401	90	172	6.5	8.7	10.0	11.0
Pioneer 3769	95	172	6.2	7.7	9.5	10.3
Dekalb DK471	95	172	6.3	8.0	9.7	10.7
Golden H2387	100	172	6.0	8.0	10.2	10.3
Dekalb DK493	100	172	6.0	7.7	9.2	10.3

continued

**Table E-11. Determining Corn Hybrid Maturity - Comparison of Hybrids
Hancock, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Dairyland ST-1407	105	172	5.8	7.7	9.8	10.3
Golden H2441	105	172	6.0	8.2	9.5	10.0
Lemke SL65	110	172	5.2	6.8	8.7	8.7
Carhart's CX1100A	110	172	5.8	7.3	9.0	10.0
Pioneer 3936	80	199	14.5	15.5	17.2	78.7
Cargill 809	80	199	17.0	18.0	18.8	82.0
Pioneer 3905	85	199	15.0	15.5	16.7	82.7
Dekalb DK352	85	199	14.7	16.0	17.2	80.3
NK Brand N2409	90	199	13.7	15.2	16.5	75.7
Dekalb DK401	90	199	13.8	15.8	17.3	78.7
Pioneer 3769	95	199	14.2	15.3	17.2	81.7
Dekalb DK471	95	199	13.8	15.3	17.2	77.0
Golden H2387	100	199	12.7	15.3	17.3	78.0
Dekalb DK493	100	199	13.5	15.8	17.3	73.3
Dairyland ST-1407	105	199	12.7	15.2	16.8	76.0
Golden H2441	105	199	12.2	14.7	16.7	77.7
Lemke SL65	110	199	11.8	14.2	15.7	74.3
Carhart's CX1100A	110	199	12.0	14.0	15.8	75.0
Pioneer 3936	80	227			17.3	230.0
Cargill 809	80	227			18.8	226.7
Pioneer 3905	85	227			17.7	228.3
Dekalb DK352	85	227			17.8	248.3
NK Brand N2409	90	227			17.0	225.0
Dekalb DK401	90	227			18.2	253.3
Pioneer 3769	95	227			18.0	253.3
Dekalb DK471	95	227			19.3	253.3
Golden H2387	100	227			19.0	251.7
Dekalb DK493	100	227			19.2	258.3
Dairyland ST-1407	105	227			18.8	270.0
Golden H2441	105	227			18.8	255.0
Lemke SL65	110	227			17.7	266.7
Carhart's CX1100A	110	227			17.2	263.3
Mean			7.0	8.7	12.2	84.9
<u>Probability(%)</u>						
Hybrid (H)			0.0	0.0	0.0	0.4
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			0.0	0.0	0.0	0.0
<u>LSD(0.10)</u>						
Hybrid (H)			0.3	0.4	0.4	1.8
Day Of Year (D)			0.2	0.4	0.6	3.3
<u>CV(%)</u>						
			6	7	4	7

**Table E-12. Determining Corn Hybrid Maturity - Comparison of Hybrids
Janesville, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3936	80		6.6	8.1	11.9	43.1
Cargill 809	80		5.9	7.6	11.3	39.9
Pioneer 3905	85		5.9	7.4	11.3	44.2
Dekalb DK352	85		6.5	8.2	12.4	42.9
NK Brand N2409	90		6.8	8.3	12.0	42.3
Dekalb DK401	90		6.3	8.0	12.2	44.5
Pioneer 3769	95		5.8	7.8	11.6	44.2
Dekalb DK471	95		6.5	8.2	11.9	44.8
Golden H2387	100		6.1	7.8	11.6	43.5
Dekalb DK493	100		5.7	7.0	11.1	43.6
Dairyland ST-1407	105		6.5	8.3	12.2	44.8
Golden H2441	105		6.5	8.3	12.0	45.1
Lemke SL65	110		6.6	8.1	11.4	42.3
Carhart's CX1100A	110		6.4	7.9	11.5	44.0
		155	1.2	2.0	3.4	2.5
		174	5.6	7.6	9.1	15.9
		197	12.2	14.1	16.0	65.9
		234			18.5	89.8
Pioneer 3936	80	155	1.2	2.2	3.5	2.3
Cargill 809	80	155	1.0	1.7	3.3	2.5
Pioneer 3905	85	155	1.2	1.7	3.2	2.2
Dekalb DK352	85	155	1.5	2.2	3.5	2.3
NK Brand N2409	90	155	1.3	2.3	3.7	2.8
Dekalb DK401	90	155	1.0	2.0	3.2	2.7
Pioneer 3769	95	155	1.2	2.3	3.3	2.7
Dekalb DK471	95	155	1.2	2.3	3.7	2.5
Golden H2387	100	155	1.0	1.8	3.5	2.3
Dekalb DK493	100	155	0.8	1.3	2.8	2.5
Dairyland ST-1407	105	155	1.3	2.3	3.0	2.5
Golden H2441	105	155	1.5	2.5	3.7	2.7
Lemke SL65	110	155	1.0	2.0	3.3	2.2
Carhart's CX1100A	110	155	1.0	2.0	3.7	2.8
Pioneer 3936	80	174	5.8	7.8	9.5	16.0
Cargill 809	80	174	5.5	7.5	8.8	15.3
Pioneer 3905	85	174	5.5	7.3	8.7	16.0
Dekalb DK352	85	174	6.0	8.2	10.2	16.0
NK Brand N2409	90	174	5.8	8.0	9.8	18.0
Dekalb DK401	90	174	6.0	8.0	9.5	14.7
Pioneer 3769	95	174	5.2	7.3	8.3	15.0
Dekalb DK471	95	174	5.7	7.7	9.0	18.0
Golden H2387	100	174	5.3	7.3	9.0	15.3
Dekalb DK493	100	174	4.5	6.5	7.8	14.3
Dairyland ST-1407	105	174	5.7	7.7	9.2	16.0
Golden H2441	105	174	5.8	8.0	9.5	16.3

continued

**Table E-12. Determining Corn Hybrid Maturity - Comparison of Hybrids
Janesville, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Lemke SL65	110	174	6.0	8.0	9.2	16.3
Carhart's CX1100A	110	174	5.5	7.5	8.7	15.7
Pioneer 3936	80	197	12.7	14.3	16.2	66.3
Cargill 809	80	197	11.3	13.7	15.3	62.3
Pioneer 3905	85	197	11.2	13.3	15.3	65.3
Dekalb DK352	85	197	12.0	14.2	16.3	65.3
NK Brand N2409	90	197	13.3	14.7	16.8	67.7
Dekalb DK401	90	197	11.8	14.0	16.3	66.3
Pioneer 3769	95	197	11.2	13.7	15.5	63.3
Dekalb DK471	95	197	12.7	14.7	16.7	66.7
Golden H2387	100	197	12.0	14.2	16.2	67.0
Dekalb DK493	100	197	11.8	13.2	15.3	63.7
Dairyland ST-1407	105	197	12.5	15.0	16.8	67.0
Golden H2441	105	197	12.2	14.5	16.2	67.7
Lemke SL65	110	197	12.8	14.2	15.3	66.7
Carhart's CX1100A	110	197	12.8	14.3	15.5	67.0
Pioneer 3936	80	234			18.3	87.9
Cargill 809	80	234			17.7	79.4
Pioneer 3905	85	234			18.0	93.4
Dekalb DK352	85	234			19.5	87.9
NK Brand N2409	90	234			17.8	80.7
Dekalb DK401	90	234			19.8	94.5
Pioneer 3769	95	234			19.2	95.8
Dekalb DK471	95	234			18.3	91.9
Golden H2387	100	234			17.8	89.2
Dekalb DK493	100	234			18.3	93.8
Dairyland ST-1407	105	234			19.8	93.8
Golden H2441	105	234			18.8	93.8
Lemke SL65	110	234			17.7	84.1
Carhart's CX1100A	110	234			18.0	90.6
Mean			6.3	7.9	11.7	43.5
<u>Probability(%)</u>						
Hybrid (H)			38.4	3.5	0.1	12.1
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			89.0	72.3	3.3	2.6
<u>LSD(0.10)</u>						
Hybrid (H)			0.7	0.6	0.6	2.6
Day Of Year (D)			0.2	0.2	0.3	2.5
<u>CV(%)</u>						
			15	10	7	9

**Table E-13. Determining Corn Hybrid Maturity - Comparison of Hybrids
Lancaster, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height inches
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Pioneer 3936	80		7.7	9.3	12.5	39.7
Cargill 809	80		7.7	9.2	12.8	41.6
Pioneer 3905	85		7.4	8.9	12.6	39.9
Dekalb DK352	85		6.8	8.2	11.6	40.7
NK Brand N2409	90		6.3	7.8	11.3	40.3
Dekalb DK401	90		7.3	9.2	12.5	40.6
Pioneer 3769	95		6.4	8.1	11.3	39.1
Dekalb DK471	95		6.5	8.2	11.9	42.4
Golden H2387	100		6.6	8.6	12.4	41.6
Dekalb DK493	100		6.0	7.9	11.5	44.4
Dairyland ST-1407	105		6.0	7.6	11.2	43.9
Golden H2441	105		6.5	8.3	12.2	41.1
Lemke SL65	110		5.8	7.6	11.1	42.3
Carhart's CX1100A	110		5.8	7.6	11.2	43.8
		156	1.5	2.5	3.7	2.6
		178	6.1	8.3	10.2	19.2
		199	12.3	14.1	15.9	58.9
		266			17.7	85.3
Pioneer 3936	80	156	1.7	2.7	4.0	2.8
Cargill 809	80	156	2.0	2.8	4.0	2.3
Pioneer 3905	85	156	1.8	2.7	4.0	2.7
Dekalb DK352	85	156	1.5	2.7	4.0	3.0
NK Brand N2409	90	156	1.3	2.7	3.8	2.7
Dekalb DK401	90	156	1.7	3.0	4.0	2.2
Pioneer 3769	95	156	1.3	2.7	4.0	2.2
Dekalb DK471	95	156	1.7	2.3	4.0	2.7
Golden H2387	100	156	1.7	3.0	4.0	2.7
Dekalb DK493	100	156	1.0	2.2	3.2	2.8
Dairyland ST-1407	105	156	1.8	2.5	3.5	2.8
Golden H2441	105	156	1.5	2.3	3.8	2.5
Lemke SL65	110	156	1.0	2.0	3.0	2.7
Carhart's CX1100A	110	156	1.0	2.0	3.0	2.8
Pioneer 3936	80	178	6.8	9.3	11.3	20.3
Cargill 809	80	178	6.7	9.3	11.3	20.7
Pioneer 3905	85	178	6.3	8.8	10.8	20.0
Dekalb DK352	85	178	6.0	8.0	10.0	21.3
NK Brand N2409	90	178	5.7	7.7	9.5	18.7
Dekalb DK401	90	178	6.7	9.3	11.3	20.3
Pioneer 3769	95	178	5.8	8.0	9.7	19.3
Dekalb DK471	95	178	6.0	8.2	10.2	19.7
Golden H2387	100	178	6.2	8.7	10.3	14.3
Dekalb DK493	100	178	5.7	7.8	9.5	18.0

continued

**Table E-13. Determining Corn Hybrid Maturity - Comparison of Hybrids
Lancaster, WI - 1997**

Hybrid	Relative Maturity	Day of Year	Leaf Development			Plant Height inches
			Leaf Collars	Hail Adjuster's Method	Total Leaves	
Dairyland ST-1407	105	178	5.7	7.5	9.3	18.7
Golden H2441	105	178	6.3	8.7	10.5	19.0
Lemke SL65	110	178	5.8	7.7	9.0	19.0
Carhart's CX1100A	110	178	5.8	7.8	9.5	19.3
Pioneer 3936	80	199	14.7	16.0	17.0	59.7
Cargill 809	80	199	14.3	15.5	17.3	62.7
Pioneer 3905	85	199	14.0	15.3	17.3	59.3
Dekalb DK352	85	199	13.0	14.0	15.7	59.7
NK Brand N2409	90	199	11.8	13.2	15.2	59.0
Dekalb DK401	90	199	13.7	15.3	16.7	60.7
Pioneer 3769	95	199	12.0	13.5	15.2	58.0
Dekalb DK471	95	199	11.8	14.2	15.7	58.7
Golden H2387	100	199	11.8	14.0	16.5	60.0
Dekalb DK493	100	199	11.3	13.8	15.2	61.7
Dairyland ST-1407	105	199	10.5	12.7	14.7	58.3
Golden H2441	105	199	11.7	13.8	16.2	55.0
Lemke SL65	110	199	10.7	13.2	15.2	53.0
Carhart's CX1100A	110	199	10.5	12.8	14.8	59.3
Pioneer 3936	80	266			17.5	76.1
Cargill 809	80	266			18.3	80.7
Pioneer 3905	85	266			18.3	77.4
Dekalb DK352	85	266			16.7	78.7
NK Brand N2409	90	266			16.8	80.7
Dekalb DK401	90	266			18.2	79.4
Pioneer 3769	95	266			16.3	76.8
Dekalb DK471	95	266			17.8	88.6
Golden H2387	100	266			18.7	89.2
Dekalb DK493	100	266			18.3	95.1
Dairyland ST-1407	105	266			17.2	95.8
Golden H2441	105	266			18.3	87.9
Lemke SL65	110	266			17.3	94.5
Carhart's CX1100A	110	266			17.3	93.8
Mean			6.6	8.3	11.9	41.5
<u>Probability(%)</u>						
Hybrid (H)			0.0	0.0	0.0	0.2
Day Of Year (D)			0.0	0.0	0.0	0.0
H x D			0.0	0.0	0.0	0.0
<u>LSD(0.10)</u>						
Hybrid (H)			0.5	0.4	0.5	2.4
Day Of Year (D)			0.4	0.3	0.3	1.5
<u>CV(%)</u>						
			10	8	6	8

**Table E-14. Determining Corn Hybrid Maturity - Comparison of Hybrids
Arlington, WI - 1997**

Hybrid	Relative Maturity	Broken Stalks %	Yield bu/A	Moisture %	Test Wt lbs/bu
Pioneer 3936	80	4.0	135.5	19.1	58
Cargill 809	80	7.3	139.9	20.1	57
Pioneer 3905	85	3.0	134.6	20.9	58
Dekalb DK352	85	1.7	129.0	19.1	57
NK Brand N2409	90	2.0	147.0	21.3	59
Dekalb DK401	90	5.0	149.2	23.0	54
Pioneer 3769	95	2.7	174.0	25.0	55
Dekalb DK471	95	2.0	180.3	24.4	54
Golden H2387	100	8.3	197.5	27.5	55
Dekalb DK493	100	2.3	193.7	26.0	54
Dairyland ST-1407	105	9.0	165.8	31.3	52
Golden H2441	105	9.0	164.7	30.9	53
Lemke SL65	110	5.7	162.9	34.2	53
Carhart's CX1100A	110	7.7	145.6	33.9	54
Mean		5.0	158.5	25.5	55
<u>Probability(%)</u>					
Hybrid (H)		0.1	0.0	0.0	0.0
<u>LSD(0.10)</u>					
Hybrid (H)		3.4	23.7	1.4	1.3
<u>CV(%)</u>					
		49	11	4	2

**Table E-15. Determining Corn Hybrid Maturity - Comparison of Hybrids
Fond du Lac, WI - 1997**

Hybrid	Relative Maturity	Broken Stalks %	Yield bu/A	Moisture %	Test Wt lbs/bu
Pioneer 3936	80	1.3	168.8	25.6	55
Cargill 809	80	4.0	157.3	22.1	57
Pioneer 3905	85	1.7	149.7	21.1	59
Dekalb DK352	85	2.7	157.3	23.3	56
NK Brand N2409	90	12.7	154.8	23.0	57
Dekalb DK401	90	13.0	136.9	26.9	56
Pioneer 3769	95	3.3	181.9	27.3	54
Dekalb DK471	95	2.3	193.7	27.2	56
Golden H2387	100	4.0	156.4	27.6	55
Dekalb DK493	100	1.3	184.1	29.2	54
Dairyland ST-140	105	4.0	182.8	27.0	55
Golden H2441	105	4.3	156.7	26.5	58
Lemke SL65	110	2.3	181.2	31.2	54
Carhart's CX110C	110	4.3	153.0	30.1	57
Mean		4.4	165.3	26.2	56
<u>Probability(%)</u>					
Hybrid (H)		2.7	43.9	83.1	6.3
<u>LSD(0.10)</u>					
Hybrid (H)		5.8	NS	NS	3.6
<u>CV(%)</u>					
		95	22	21	5

**Table E-16. Determining Corn Hybrid Maturity - Comparison of Hybrids
Hancock, WI - 1997**

Hybrid	Relative Maturity	Broken Stalks %	Yield bu/A	Moisture %	Test Wt lbs/bu
Pioneer 3936	80	23.0	118.8	17.1	55
Cargill 809	80	24.0	123.3	21.3	55
Pioneer 3905	85	11.7	142.0	21.8	55
Dekalb DK352	85	7.3	108.6	26.1	55
NK Brand N2409	90	30.0	118.6	24.6	54
Dekalb DK401	90	6.3	191.5	23.3	52
Pioneer 3769	95	10.3	185.0	22.9	54
Dekalb DK471	95	9.3	181.9	24.5	53
Golden H2387	100	15.7	175.4	28.5	52
Dekalb DK493	100	10.0	189.3	25.7	53
Dairyland ST-140	105	3.3	187.3	34.2	50
Golden H2441	105	8.3	188.3	29.7	52
Lemke SL65	110	5.3	160.9	35.5	53
Carhart's CX110C	110	4.7	189.0	32.4	53
Mean		12.1	161.4	26.2	53
<u>Probability(%)</u>					
Hybrid (H)		0.0	0.0	0.0	0.1
<u>LSD(0.10)</u>					
Hybrid (H)		6.0	29.6	4.0	1.9
<u>CV(%)</u>					
		35	13	11	3

**Table E-17. Determining Corn Hybrid Maturity - Comparison of Hybrids
Janesville, WI - 1997**

Hybrid	Relative Maturity	Broken Stalks %	Yield bu/A	Moisture %	Test Wt lbs/bu
Pioneer 3936	80	6.3	158.0	19.0	58
Cargill 809	80	2.0	143.4	18.7	58
Pioneer 3905	85	4.3	185.5	25.0	56
Dekalb DK352	85	4.3	185.9	21.4	55
NK Brand N2409	90	3.7	129.8	17.0	59
Dekalb DK401	90	2.3	190.8	22.8	56
Pioneer 3769	95	4.0	201.6	24.8	54
Dekalb DK471	95	1.7	168.8	26.9	58
Golden H2387	100	3.7	157.3	23.7	57
Dekalb DK493	100	1.3	161.3	24.9	57
Dairyland ST-140	105	2.0	185.5	20.9	57
Golden H2441	105	3.7	174.1	24.6	56
Lemke SL65	110	6.3	155.9	28.5	58
Carhart's CX110C	110	2.0	147.8	32.9	58
Mean		3.4	169.8	23.6	57
<u>Probability(%)</u>					
Hybrid (H)		53.2	28.9	32.7	51.3
<u>LSD(0.10)</u>					
Hybrid (H)		NS	NS	NS	NS
<u>CV(%)</u>					
		85	21	24	4