

FIELD EXPERIMENT HISTORY

Title: Determining Corn Hybrid Maturity - Comparison of Sweet Corn Hybrids **Year:** 1995
Personnel: J.G. Lauer, W. F. Tracy
Location: West Madison Research Station, Madison, WI
Supported by: Hatch

FIELD INFORMATION

Field: B502
Soil Type: Plano Silt Loam
Soil Test Results: Test Date: 10/95 pH: 7.1 P (ppm): 48 K (ppm): 175 OM (%): 3.5
Fertilizer: Manure 30 tons/a
Tillage Operations: Moldboard Plow, Soil Finisher
Previous Crop: Soybean

EXPERIMENTAL PROCEDURE

Exp. Design: RCB
Replicates: 3
Variables: Hybrids: Variable, see individual studies.
Area Planted: 10' x 13'
Row Spacing: 30"
Planting Date: 15-May (Study 1) 30-May (Studies 2 to 5)
Planting Equip: Almaco Plot Planter w/seed cones
Planting Rate: 20000 plants/a

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

Results: Tables E-13 to E-17.

**Table E-13. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study 1.
Madison, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Leaf Development			Plant Height cm
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Challenger		8.3	9.8	11.7	72.9
SS Jubilee		8.0	9.5	11.5	81.7
Zenith		8.6	10.7	12.3	78.9
	160	2.9	3.6	5.4	11.1
	166	4.1	5.1	7.1	24.7
	174	6.7	9.3	11.4	49.7
	179	8.3	11.0	13.7	64.0
	188	10.7	13.9	16.3	92.4
	209	17.0	17.0	17.0	225.0
Challenger	160	2.9	3.4	5.2	11.0
Challenger	166	4.0	5.0	6.9	23.0
Challenger	174	6.8	9.0	11.2	47.0
Challenger	179	8.3	10.9	13.7	61.3
Challenger	188	11.0	13.8	16.1	90.0
Challenger	209	16.8	16.8	16.8	205.0
SS Jubilee	160	2.9	3.6	5.2	11.3
SS Jubilee	166	4.1	4.7	7.1	24.3
SS Jubilee	174	6.3	8.9	11.2	53.3
SS Jubilee	179	7.9	10.4	13.4	66.0
SS Jubilee	188	10.2	13.2	15.6	93.3
SS Jubilee	209	16.3	16.3	16.3	241.7
Zenith	160	3.0	3.9	5.7	11.0
Zenith	166	4.2	5.7	7.2	26.7
Zenith	174	6.9	10.0	11.7	48.7
Zenith	179	8.6	11.8	14.1	64.7
Zenith	188	11.0	14.6	17.2	94.0
Zenith	209	18.0	18.0	18.0	228.3
Mean	.	8.3	10.0	11.8	77.8
<u>Probability %</u>					
Hybrid (H)		9.1	1.3	7.6	11.1
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		< 0.1	21.3	0.2	< 0.1
<u>LSD (0.10)</u>					
Hybrid (H)		0.5	0.4	0.6	NS
Day of Year (D)		0.2	0.3	0.2	4.2
<u>CV %</u>					
		5.4	6.0	4.8	6.7

**Table E-14. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study 2.
Madison, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Leaf Development			Plant Height cm
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Delectable		6.3	7.4	9.2	58.9
Incredible		6.5	7.6	9.4	60.1
Miracle		6.4	7.5	9.3	56.9
Sugar Buns		6.2	7.3	9.2	63.7
	160	1.0	1.2	2.8	6.0
	166	2.0	2.8	4.4	10.3
	174	4.7	6.1	8.3	26.3
	179	6.1	7.9	10.4	39.2
	188	7.9	10.4	13.2	58.0
	209	16.4	16.5	16.6	219.6
Delectable	160	1.0	1.6	3.1	6.0
Delectable	166	2.1	2.9	4.6	10.0
Delectable	174	4.8	6.1	8.1	24.7
Delectable	179	6.0	7.9	10.2	39.7
Delectable	188	8.1	10.3	13.3	60.0
Delectable	209	15.9	15.9	15.9	213.3
Incredible	160	1.0	1.1	2.2	5.0
Incredible	166	2.0	2.6	4.4	10.7
Incredible	174	4.8	6.4	8.7	28.0
Incredible	179	6.3	8.0	10.8	40.7
Incredible	188	8.1	10.7	13.3	57.7
Incredible	209	16.9	16.9	16.9	218.3
Miracle	160	1.0	1.0	2.9	6.7
Miracle	166	2.0	2.8	4.1	9.7
Miracle	174	4.7	6.0	7.9	22.3
Miracle	179	6.1	7.9	10.1	33.3
Miracle	188	7.8	10.3	13.1	51.0
Miracle	209	17.0	17.2	17.4	218.3
Sugar Buns	160	1.0	1.0	3.0	6.3
Sugar Buns	166	2.0	3.0	4.3	11.0
Sugar Buns	174	4.6	6.0	8.3	30.0
Sugar Buns	179	5.9	7.7	10.3	43.0
Sugar Buns	188	7.7	10.2	13.1	63.3
Sugar Buns	209	16.0	16.0	16.0	228.3
Mean		6.4	7.5	9.3	59.9
<u>Probability %</u>					
Hybrid (H)		> 50	> 50	> 50	39.4
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		13.6	8.3	2.8	> 50
<u>LSD (0.10)</u>					
Hybrid (H)		NS	NS	NS	NS
Day of Year (D)		0.2	0.3	0.3	4.3
<u>CV %</u>					
		8.1	11.0	9.1	10.4

**Table E-15. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study 3.
Madison, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Leaf Development			Plant Height cm
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
How Sweet It Is		6.3	7.4	9.0	52.2
How Sweet It Is	160	1.0	1.0	2.6	4.7
How Sweet It Is	166	2.1	3.0	4.3	8.7
How Sweet It Is	174	4.9	6.8	8.0	24.7
How Sweet It Is	179	6.1	7.8	10.3	35.3
How Sweet It Is	188	8.1	10.1	13.2	56.7
How Sweet It Is	209	15.4	15.4	15.4	183.3
Mean		6.3	7.4	9.0	52.2
Probability %					
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
LSD (0.10)					
Day of Year (D)		1.0	1.0	1.1	22.3
CV %					
		7.5	8.9	8.7	28.8

**Table E-16. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study 4.
Madison, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Leaf Development			Plant Height cm
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Challenger		6.3	7.4	9.3	52.6
SS Jubilee		6.4	7.4	9.1	53.1
Zenith		6.2	7.3	8.9	51.6
	160	1.0	1.0	2.8	6.1
	166	2.0	2.9	4.3	8.6
	174	4.7	6.5	8.0	25.3
	179	6.0	7.9	10.3	36.2
	188	8.2	10.2	13.3	53.2
	209	15.8	15.8	15.8	185.0
Challenger	160	1.0	1.0	2.7	6.3
Challenger	166	2.0	2.9	4.7	9.3
Challenger	174	4.8	7.0	8.4	27.3
Challenger	179	6.1	8.0	10.9	38.0
Challenger	188	8.2	10.2	13.4	56.0
Challenger	209	15.6	15.6	15.6	178.3
SS Jubilee	160	1.0	1.0	2.8	5.3
SS Jubilee	166	2.0	2.9	4.3	8.7
SS Jubilee	174	4.7	6.3	7.8	23.0
SS Jubilee	179	5.8	7.9	9.8	32.7
SS Jubilee	188	8.0	9.9	13.0	52.0
SS Jubilee	209	16.7	16.7	16.7	196.7
Zenith	160	1.0	1.0	2.9	6.7
Zenith	166	2.0	2.9	3.9	7.7
Zenith	174	4.8	6.2	7.9	25.7
Zenith	179	6.2	7.9	10.2	38.0
Zenith	188	8.2	10.4	13.6	51.7
Zenith	209	15.2	15.2	15.2	180.0
Mean		6.3	7.4	9.1	52.4
<u>Probability %</u>					
Hybrid (H)		> 50	> 50	49.3	> 50
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		43.2	32.3	30.3	> 50
<u>LSD (0.10)</u>					
Hybrid (H)		NS	NS	NS	NS
Day of Year (D)		0.5	0.5	0.6	9.3
<u>CV %</u>					
		7.9	9.0	8.2	22.3

**Table E-17. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study 5.
Madison, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Leaf Development			Plant Height cm
		Leaf Collars	Hail Adjuster's Method	Total Leaves	
Empire		6.3	7.4	9.1	59.6
Excellency		6.5	7.7	9.4	57.9
GH 1703		6.4	7.7	9.2	53.9
Jubilee		6.3	7.5	9.1	55.9
	160	1.0	1.0	2.9	5.8
	166	2.0	2.7	4.1	9.3
	174	4.7	6.6	8.0	26.3
	179	6.1	8.2	10.2	38.2
	188	7.8	10.4	13.4	55.1
	209	16.6	16.6	16.6	206.3
Empire	160	1.0	1.0	2.9	7.0
Empire	166	2.0	2.6	4.1	9.7
Empire	174	4.4	6.3	8.0	26.0
Empire	179	6.1	8.0	10.0	39.7
Empire	188	7.6	9.9	13.1	55.0
Empire	209	16.6	16.6	16.6	220.0
Excellency	160	0.9	0.9	2.8	4.7
Excellency	166	2.0	2.8	4.1	8.7
Excellency	174	4.9	6.7	8.2	27.7
Excellency	179	6.2	8.4	10.8	41.0
Excellency	188	8.1	11.0	14.0	57.0
Excellency	209	16.7	16.7	16.7	208.3
GH 1703	160	1.0	1.1	2.8	4.7
GH 1703	166	2.0	2.6	4.1	9.7
GH 1703	174	4.6	6.8	7.8	25.7
GH 1703	179	6.0	8.3	9.9	35.0
GH 1703	188	7.7	10.4	13.4	55.3
GH 1703	209	17.0	17.0	17.0	193.3
Jubilee	160	1.0	1.0	3.0	6.7
Jubilee	166	2.0	2.8	4.0	9.3
Jubilee	174	4.8	6.6	8.0	26.0
Jubilee	179	6.0	8.0	10.2	37.0
Jubilee	188	7.8	10.3	13.2	53.0
Jubilee	209	16.1	16.1	16.1	203.3
Mean		6.4	7.6	9.2	56.8
Probability %					
Hybrid (H)		> 50	> 50	> 50	48.1
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		> 50	> 50	> 50	23.9
LSD (0.10)					
Hybrid (H)		NS	NS	NS	NS
Day of Year (D)		0.3	0.3	0.3	4.6
CV %					
		5.9	8.2	6.8	11.9

FIELD EXPERIMENT HISTORY

Title: Determining Corn Hybrid Maturity - Comparison of Sweet Corn Hybrids. **Year:** 1995
Personnel: J.G. Lauer, J.L. Wedberg, C.J. Garvey
Location: Arlington Research Station, Arlington, WI
Supported by: Hatch

FIELD INFORMATION

Field: 504
Soil Type: Plano Silt Loam
Soil Test Results: Test Date: NA pH: NA P (ppm): NA K (ppm): NA OM (%): NA
Fertilizer: 160 lbs N/a Anhydrous (82-0-0)
Tillage Operations: Chisel plow, Field Cultivate (2x)
Previous Crop: Corn

EXPERIMENTAL PROCEDURE

Exp. Design: RCB
Replicates: 3
Variables: Hybrids: Empire, Heritage, Sprint
Row Spacing: 30"
Planting Date: May 12 (Study A) and June 14 (Study B)
Planting Equip: Almaco Plot Planter w/seed cones
Planting Rate: 20000 plants/a

	<u>Material</u>	<u>Rate</u>	<u>Method</u>
Herbicides:	Lasso (Arena)	2 qts/a	preemerg
	Buctril	0.75 pt/a	post

Results: Tables E-18 to E-19.

**Table E-18. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study A.
Arlington, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Growth Stage Measurement			Plant Height cm
		Leaf Collars	Leaves Hail Method	Total Leaves	
Empire		8.3	8.8	11.1	68.5
Heritage		8.2	8.8	11.4	70.9
Sprint		8.3	9.2	11.4	70.8
	157	2.6	3.6	5.0	10.1
	163	3.4	4.4	5.9	12.3
	171	5.3	6.0	8.9	27.9
	177	6.6	8.0	11.0	42.1
	187	8.8	10.5	14.1	68.4
	191	9.7	10.8	14.5	89.6
	201	14.4	13.3	15.3	138.7
	206	15.7	14.9	15.6	171.4
Empire	157	2.8	3.8	5.3	9.8
Empire	163	3.5	4.5	5.9	11.5
Empire	171	5.4	6.0	8.9	27.3
Empire	177	6.8	7.8	11.0	40.8
Empire	187	8.9	10.5	14.0	66.3
Empire	191	9.9	10.6	14.0	90.3
Empire	201	14.2	13.0	14.6	135.5
Empire	206	15.0	14.1	14.9	167.0
Heritage	157	2.2	3.1	4.4	8.5
Heritage	163	3.1	4.2	5.6	13.0
Heritage	171	5.2	6.2	8.8	26.8
Heritage	177	6.5	7.8	10.8	43.0
Heritage	187	8.5	10.0	13.9	70.3
Heritage	191	9.4	10.5	14.6	88.8
Heritage	201	14.5	13.4	16.3	142.5
Heritage	206	16.4	15.6	16.5	174.3
Sprint	157	2.9	3.9	5.2	12.0
Sprint	163	3.4	4.6	6.2	12.3
Sprint	171	5.2	5.9	9.0	29.8
Sprint	177	6.5	8.6	11.3	42.5
Sprint	187	8.9	11.1	14.4	68.8
Sprint	191	9.8	11.4	14.9	89.8
Sprint	201	14.4	13.4	14.9	138.0
Sprint	206	15.7	15.0	15.4	173.0
Mean		8.3	9.0	11.3	70.1
Probability %					
Hybrid (H)		> 50	49.5	> 50	> 50
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		10.9	4.8	< 0.1	> 50
LSD (0.10)					
Hybrid (H)		NS	NS	NS	NS
Day of Year (D)		0.4	0.4	0.3	7.5
CV %		6.7	8.4	6.0	15.7

**Table E-19. Determining Corn Hybrid Maturity.
Comparison of Sweet Corn Hybrids - Study B.
Arlington, WI - 1995.**

Sweet Corn Hybrid	Day of Year	Growth Stage Measurement			Plant Height cm
		Leaf Collars	Leaves Hail Method	Total Leaves	
Empire		8.0	8.6	11.1	71.2
Heritage		6.9	8.1	10.7	60.3
Sprint		6.8	8.0	10.3	66.8
	177	2.3	2.8	4.4	10.9
	187	4.4	4.9	7.6	31.2
	191	5.0	5.8	8.9	37.3
	201	8.2	10.6	13.4	70.8
	206	9.9	11.6	14.5	98.8
	214	13.7	13.6	15.3	147.8
Empire	177	2.8	3.3	4.9	12.0
Empire	187	4.9	5.7	8.4	32.8
Empire	191	5.4	6.4	9.6	37.8
Empire	201	9.1	10.9	14.0	77.3
Empire	206	11.1	11.3	14.6	108.0
Empire	214	14.8	13.8	14.8	159.3
Heritage	177	2.0	2.5	3.9	10.3
Heritage	187	4.1	4.7	7.1	28.5
Heritage	191	4.9	5.6	8.5	33.8
Heritage	201	7.9	10.6	13.1	63.0
Heritage	206	9.4	11.6	14.7	88.5
Heritage	214	13.2	13.4	16.6	138.0
Sprint	177	2.1	2.7	4.2	10.5
Sprint	187	4.1	4.3	7.4	32.3
Sprint	191	4.8	5.4	8.6	40.3
Sprint	201	7.5	10.3	12.9	72.0
Sprint	206	9.2	11.8	14.1	100.0
Sprint	214	13.2	13.5	14.5	146.0
Mean		7.2	8.2	10.7	66.1
<u>Probability %</u>					
Hybrid (H)		0.1	5.6	4.7	2.9
Day of Year (D)		< 0.1	< 0.1	< 0.1	< 0.1
H x D		0.1	< 0.1	< 0.1	0.4
<u>LSD (0.10)</u>					
Hybrid (H)		0.3	0.4	0.5	5.8
Day of Year (D)		0.2	0.2	0.2	3.5
<u>CV %</u>					
		8.0	9.5	5.9	7.7