UNIVERSITY OF DELAWARE

PROCESSING

SWEET CORN

VARIETY

TRIAL

RESULTS

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2010

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2010 University of Delaware Processing Sweet Corn Variety Trials

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Introduction

The UD Extension Vegetable Program conducted four processing sweet corn trials in 2010. The purpose of these trials was to evaluate new sugary, sugary enhanced and supersweet yellow processing sweet corn varieties for yield and quality characteristics under Delaware growing conditions. Similar trials were conducted in Delaware in 1999, 2000, 2002 and 2006. Reports from past trials are archived at http://ag.udel.edu/extension/vegprogram/trialresults.htm. Additional processing sweet corn trials are planned for summer 2011.

Two supersweet trials and two sugary/sugary enhanced trials were planted in summer 2010. Details for trial planting, management and harvest procedures are in the Materials and Methods section. Each trial is analyzed as a separate experiment and results are reported as such.

Materials and Methods

Trial	**Early su Trial**	**Early sh_2 Trial**	**Late su/se Trial**	**Late sh_2 Trial**
Planting Date	April 13	April 12/13	May 25	May 21
Planting Procedure	Hand planted with jab-planters	Planted with Monosem	Planted with Monosem	Hand planted with jab-planters
Spacing	9” in-row 30” between-row	9” in-row 30” between-row	9” in-row 30” between-row	9” in-row 30” between-row
# Varieties	7	13	8	18
Location	Laurel, DE 38°32’49.28”N 75°35’22.30”W	UD Carvel REC Georgetown, DE	UD Carvel REC Georgetown, DE	Felton, DE 39°00’30.36” N 75°31’09.96” W
Plot Design	4 replications 3-row plots plots 50 ft long	4 replications 4-row plots plots 50 ft long	4 replications 3-row plots plots 50 ft long	4 replications 3-row plots plots 50 ft long
Irrigation	Overhead irrigation (center pivot or linear system)			
Weed Control	Pre-emergence herbicides used on all plots. Weed control was excellent in all plots except the Early su Trial, which had moderate weed pressure.			
Insecticide	All plots received multiple sprays to control corn earworm and European corn borer. Incidence was very low in all plots.			
Harvest Began	June 30	July 6	August 3	August 3
Harvest Ended	July 9	July 12	August 9	August 9

Varieties Entered in the 2010 Processing Sweet Corn Variety Trials

Variety	Genotype	Early Trial	Late Trial	Company
GH 4927	sugary	X	X	check (Syngenta)
GH 0991	sugary	X	X	check (Syngenta)
GH 9597	sugary	X	X	check (Syngenta)
GH 2171 (bicolor)	sugary	X	X	Syngenta
GH 6462	sugary	X	X	Syngenta
Rocket	sugary	X	X	Crites Seed, Inc.
Captain	sugary	X	X	Crites Seed, Inc.
Champ	sugary enhanced		X	check (Seminis)
Overland	supersweet	X	X	check (Syngenta)
GSS 9299	supersweet	X	X	check (Syngenta)
GSS 2259P	supersweet	X	X	Syngenta
Protégé	supersweet	X	X	Syngenta
ACX SS7501Y	supersweet	X	X	Abbott & Cobb
ACX SS7078Y	supersweet	X	X	Abbott & Cobb
ACX SS7403RY	supersweet	X	X	Abbott & Cobb
ACX 7195MRY	supersweet	X	X	Abbott & Cobb
ACR 7242RY	supersweet	X	X	Abbott & Cobb
Rising Sun (ZHY 1089OM)	supersweet	X	X	Crites Seed, Inc.
Galaxy	supersweet	X	X	Crites Seed, Inc.
HMX 9386	supersweet	X	X	Harris Moran
HMX 9388	supersweet		X	Harris Moran
Sentinel	supersweet	X	X	Harris Moran
Rana	supersweet		X	Crookham
Samurai	supersweet		X	Crookham
Juggernaut	supersweet		X	Crookham
Fortitude	supersweet		X	Crookham

Data Collection Procedures

Before harvest a thirty-foot section of the center row of the plot was flagged and designated for harvest. The plants in this section were counted and are reported as final stands.

At the time of harvest, the height of the plant and the height of the first ear was measured and recorded for eight plants from each replication, with the exception of the Late Supersweet Trial, where this data was taken for only three of the four replications.

In advance of harvest, five-ear samples were taken from the plot border rows and tested for percent moisture. The target range for harvest for the sugary and sugary enhanced varieties was 69-72% moisture. The target range for the superweet varieties was 72-75% moisture.

Ears were hand harvested from the thirty-foot harvest section. Ears were counted and weighed in-husk and husked. Ten representative ears from the plot were weighed and then the corn was

cut from this sample using a commercial cutter. The percent moisture was measured using a CEM Smart System microwave moisture analyzer.

The ear length, ear diameter, row number and kernel depth was determined for a sample of five ears from each plot on the day of harvest.

Discussion of Trial Results

Early Sugary Trial

The early trial of the sugary varieties was planted into high sandy ground (Henlopen-Rosedale complex, 0 to 2 percent slope; loamy sand) on April 13. Temperatures were warmer than average for the end of April and early May this year. Emergence in the plot was excellent for all varieties except Captain and GH 0991. A break-down in the irrigation system for this field in early May resulted in some stress on the plot and rep 4 of the trial was particularly affected.

There were significant differences in yield for this trial, both in terms of the weight of the unhusked ears and in terms of the weight of cut corn. The highest yielding varieties for weight of unhusked ears were GH 6462, GH 9597 and Rocket. The highest yielding variety in terms of cut corn was GH 0991, which produced a significantly higher yield than all of the other varieties. Because this field was drought and heat stressed, some of the varieties began to dry down before they attained much kernel depth. GH 2171, for example, was harvested at 63.1% moisture but only had a kernel depth of 0.8 cm.

Late Sugary and Sugary Enhanced Trial

The late trial of the sugary and sugary enhanced varieties was planted into Hammonton loamy sand, 0 to 2 percent slopes on May 25. Emergence was excellent for all of the varieties, except Champ, which had about 75% emergence.

Temperatures were higher than normal this summer and this trial was heat and drought stressed (though not as bad as the Early Sugary Trial). The average high temperature during this trial was 87°F and the average low was 68°F. The trial received only 3.12 inches of rainfall and the irrigation supplied was inadequate. This was especially true near harvest, and resulted in excessively low percent moisture in the cut corn. There were a few significant differences in yield for this trial, but only in terms of weight of cut corn -- not for weight of unhusked ears. GH 6462 had a significantly higher yield of cut corn than GH 2171 and GH 4927; there were no other significant differences in yield.

Early Supersweet Trial

The early trial of supersweet varieties was planted into Hammonton loamy sand, 0 to 2 percent slopes. Most of the varieties were planted with a Monosem on April 12. The seed of Sentinel and HMX 9386 arrived late and was planted into marked rows in the plot with jab planters on April 13. The stands for the majority of the varieties were excellent, which was somewhat surprising for supersweet varieties planted so early. We did, however, have unusually warm weather in late April. The two varieties planted on April 13 had the lowest stand counts, which may have been related to the planting method or time.

This trial received adequate irrigation and was not stressed. There were no significant differences in the weight of the unhusked ears, but there were significant differences in the weight of the husked ears and in the weight of the cut corn. In terms of cut corn, the highest yielding varieties in the trial were ACX 7195MRY, Galaxy, Sentinel, ACX SS7501Y and Overland. ACX 7195MRY and Galaxy produced significantly higher yields than GSS 9299, one of the check varieties.

Late Supersweet Trial

The late trial of supersweet varieties was planted into Hambrook sandy loam, 2 to 5 percent slopes on May 21. Stands for most varieties in the trial were good, however GSS9299, ACX SS7403RY, Rana and Juggernaut had less than 75% emergence and Samurai had only 53% emergence.

This trial was subjected to extremely high temperatures, similar to the Late su/se Trial. The average high temperature was 88°F and the average low was 66°F. Unlike the Late su/se Trial, however, this trial did not experience drought stress, thanks to heavier soil and ample irrigation.

There were significant differences in yield for this trial in terms of unhusked weight and in terms of weight of cut corn. In terms of weight of unhusked ears, the highest yielding varieties were ACR 7242RY and ACX SS7501Y. ACR 7242RY yielded significantly higher than both check varieties. In terms of weight of cut corn, the highest yielding varieties were ACX 7195MRY, ACR 7242RY, Overland and GSS 2259P. ACX 7195MRY and ACR 7242RY had significantly higher yields of cut corn than one of the standard varieties, GSS 9299, but did not have significantly higher yields than Overland.

Conclusions

Both trials of the sugary varieties were drought stressed. Any varieties producing acceptable yields in these trials exhibit a level of stress tolerance. It is noteworthy that in the early trial GH 0991 produced a significantly higher yield than all of the other varieties. GH 6462 also performed well in both trials.

Both of the supersweet trials received adequate irrigation. The check variety, Overland, performed well in both of these trials. Experimental varieties that showed promise in these trials include ACX 7195MRY, ACR 7242 RY, Galaxy, and GSS 2259P.

2010 University of Delaware Processing Sweet Corn Trials
Results for Sugary and Sugary Enhanced Varieties
Trials planted April 13, 2010 and May 25, 2010

Table 1. 2010 Processing Sweet Corn Early Sugary Trial: Final Stand Counts

Variety	Plants/30 ft. of Row	
GH 2171	38.5	a
Rocket	35.8	ab
GH 9597	34.5	ab
GH 6462	33.8	ab
GH 4927	32.3	abc
GH 0991	29.3	bc
Captain	26.8	c
p-value	***0.0359***	
LSD	**6.89**	

Table 2. 2010 Processing Sweet Corn Late Sugary and Sugary Enhanced Trial: Final Stand Counts

Variety	Plants/30 ft. of Row	
GH 9597	40.5	ab
GH 6462	40.0	ab
Captain	39.3	ab
Rocket	38.8	ab
GH 2171	37.8	ab
GH 0991	37.5	ab
GH 4927	37.0	b
Champ	30.3	c
p-value	***0.0003***	
LSD	**3.81**	

Table 3. 2010 Processing Sweet Corn Early Sugary Trial: Moisture Samples Up to and Including Harvest

		Percent Moisture of Samples Up to and Including Harvest*										
		29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul
Variety	**DTH**	**77**	**78**	**79**	**80**	**81**	**82**	**83**	**84**	**85**	**86**	**87**
Rocket	78	70.36	**67.6**									
GH 2171	78	69.61	**63.1**									
GH 4927	80		70.38		**70.8**							
GH 6462	85				81.36					**71.7**		
GH 0991	86									67.42	**69.6**	
GH 9597	86				84.26						**71.7**	
Captain	87									73.99		**72.9**

* Numbers in bold are final harvest averages of four replications; other numbers based on a sample of five ears from a single rep.

Table 4. 2010 Processing Sweet Corn Late Sugary and Sugary Enhanced Trial: Moisture Samples Up to and Including Harvest

		Percent Moisture of Samples Up to and Including Harvest*							
		2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug
Variety	**DTH**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**
GH 2171	70	53.84	**47.8**						
Champ	70	56.74	**51.7**						
Rocket	70	55.46	**55.4**						
GH 4927	70	61.65	**56.8**						
GH 0991	70	60.68	**59.8**						
GH 9597	71	67.79		**60.8**					
GH 6462	71	63.24		**67.3**					
Captain	76			66.46					**59.7**

* Numbers in bold are final harvest averages of four replications; other numbers based on a sample of five ears from a single rep.

Table 5. 2010 Processing Sweet Corn Early Sugary Trial: Yield and Harvest Data

Variety	Days to Harvest	Weight Unhusked Ears (tons/A)	Weight Husked Ears (tons/A)	Weight Cut Corn (lbs/A)	Percent Recovery	Percent Moisture	# Ears per Acre	# Ears per Plant
GH 0991	86	6.609 bc	4.799 ab	4330 a	32.6 a	69.6 ab	17569 b	1.04 a
GH 6462	85	8.043 a	5.303 a	3256 b	20.3 c	71.7 a	22361 a	1.17 a
GH 9597	86	7.642 ab	5.310 a	3183 b	20.5 c	71.7 a	22797 a	1.16 a
Rocket	78	6.803 abc	4.864 ab	3103 bc	22.8 c	67.6 b	22506 a	1.09 a
Captain	87	4.969 d	3.518 c	2988 bc	28.3 b	72.9 a	13068 c	0.84 a
GH 4927	80	6.177 cd	4.153 bc	2535 bc	20.3 c	70.8 ab	17569 b	0.93 a
GH 2171	78	5.685 cd	3.782 c	2265 c	19.7 c	63.1 c	19747 ab	0.88 a
p-value		***0.0015***	***0.0019***	***0.0025***	***<0.0001***	***0.0007***	***0.0003***	***0.0573***
LSD		**1.3103**	**0.8994**	**839.24**	**3.72**	**3.81**	**3823.3**	**NA**

Table 6. 2010 Processing Sweet Corn Late Sugary and Sugary Enhanced Trial: Yield and Harvest Data

Variety	Days to Harvest	Weight Unhusked Ears (tons/A)	Weight Husked Ears (tons/A)	Weight Cut Corn (lbs/A)	Percent Recovery	Percent Moisture	# Ears per Acre	# Ears per Plant
GH 6462	71	6.701 a	5.133 a	5371 a	39.1 a	67.3 *	20764 ab	0.90 a
Captain	76	6.835 a	4.917 a	5129 ab	37.5 ab	59.7 a	19747 ab	0.87 a
GH 9597	71	6.710 a	4.969 a	5016 ab	36.7 abc	60.8 *	21490 a	0.91 a
Champ	70	5.544 a	3.928 a	4043 ab	35.9 abc	51.7 cd	14375 c	0.82 a
GH 0991	70	6.165 a	4.689 a	4014 ab	31.6 cd	59.8 a	20328 ab	0.94 a
Rocket	70	5.821 a	4.847 a	4008 ab	34.3 abcd	55.4 bc	20328 ab	0.91 a
GH 2171	70	6.858 a	5.009 a	3511 b	25.4 e	47.8 d	22361 a	1.02 a
GH 4927	70	5.853 a	4.327 a	3427 b	29.1 de	56.8 ab	17134 bc	0.80 a
p-value		***0.2831***	***0.3085***	***0.0296***	***<0.0001***	***<0.0001***	***0.0020***	***0.0649***
LSD		**NA**	**NA**	**1766.00**	**5.89**	**4.20**	**3661.6**	**NA**

*****Only two replications were tested for percent moisture on this date. Consequently these varieties were not included in the statistical analysis for percent moisture.

Table 7. 2010 Processing Sweet Corn Early Sugary Trial: Ear Characteristics

Variety	Ear Weight (g)	Ear Length (cm)	Ear Diameter (cm)	Kernel Depth (cm)	Mean Number of Rows	Median Number of Rows
GH 0991	246 a	20.5 b	4.9 a	1.0 a	17.9 b	18
Captain	238 a	21.4 a	4.7 b	0.9 b	19.3 a	20
GH 6462	216 b	20.8 ab	4.5 c	0.9 b	17.8 b	18
GH 4927	211 bc	20.2 bc	4.3 de	0.9 b	16.7 c	16
GH 9597	210 bc	19.5 cd	4.4 d	0.8 c	17.7 b	18
Rocket	197 c	19.6 cd	4.2 e	0.9 b	15.9 c	16
GH 2171	174 d	18.9 d	4.2 e	0.8 c	13.4 d	14
p-value	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	
LSD	**18.1**	**0.73**	**0.13**	**0.06**	**0.92**	

Table 8. 2010 Processing Sweet Corn Late Sugary and Sugary Enhanced Trial: Ear Characteristics

Variety	Ear Weight (g)	Ear Length (cm)	Ear Diameter (cm)	Kernel Depth (cm)	Mean Number of Rows	Median Number of Rows
Champ	247 a	19.2 bc	5.0 a	1.0 cde	17.2 d	18
Captain	230 a	18.6 bcd	4.8 b	1.1 b	19.4 a	20
GH 4927	228 a	20.6 a	4.5 d	1.1 ab	15.8 e	16
GH 6462	222 a	18.8 bcd	4.6 cd	1.0 cd	18.7 ab	19
Rocket	217 a	19.3 bc	4.7 bc	1.2 a	17.7 cd	18
GH 9597	208 a	18.5 cd	4.6 cd	1.0 e	17.9 bcd	18
GH 0991	207 a	18.2 d	4.8 b	1.0 c	18.6 abc	18
GH 2171	202 a	18.5 bcd	4.3 e	0.9 f	13.8 f	14
p-value	***0.4377***	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	
LSD	**NA**	**0.95**	**0.15**	**0.06**	**0.99**	

Table 9. 2010 Processing Sweet Corn Early Sugary Trial: Plant Characteristics

Variety	Plant Height (cm)	Height of 1st Ear (cm)
GH 6462	207 a	52 c
Captain	202 ab	57 b
GH 0991	200 b	63 a
GH 9597	194 c	54 bc
GH 2171	183 d	41 d
Rocket	167 e	35 e
GH 4927	166 e	44 d
p-value	***<0.0001***	***<0.0001***
LSD	**5.0**	**4.7**

Table 10. 2010 Processing Sweet Corn Late Sugary and Sugary Enhanced Trial: Plant Characteristics

Variety	Plant Height (cm)	Height of 1st Ear (cm)
Captain	215 b	73 a
GH 6462	210 bc	68 b
GH 0991	207 bcd	74 a
GH 4927	204 cd	65 bc
GH 9597	199 de	67 b
GH 2171	195 e	61 cd
Champ	179 f	50 e
Rocket	178 f	56 d
p-value	***<0.0001***	***<0.0001***
LSD	**8.3**	**4.8**

2010 University of Delaware Processing Sweet Corn Trials
Results for Supersweet Varieties
Trials planted April 12 & 13, 2010 and May 21, 2010

Table 11. 2010 Processing Sweet Corn Early Supersweet Trial: Final Stand Counts

Variety	Plants/30 ft. of Row	
ACX SS7403RY	43.5	a
ACR 7242RY	42.5	a
ACX SS7501Y	41.8	a
Rising Sun	41.3	a
ACX SS7078Y	40.3	a
ACX 7195MRY	40.3	a
Galaxy	40.0	ab
GSS 2259P	39.5	ab
Protégé	39.3	ab
Overland	38.8	ab
GSS 9299	34.8	bc
Sentinel*	29.5	cd
HMX 9386*	26.3	d
p-value	***<0.0001***	
LSD	**5.36**	

*****Hand planted on April 13 because seed arrived late. All other varieties planted April 12 with Monosem.

Table 12. 2010 Processing Sweet Corn Late Supersweet Trial: Final Stand Counts

Variety	Plants/30 ft. of Row	
Galaxy	38.5	a
ACX 7195MRY	37.5	ab
SHY6RH1036	35.5	abc
ACR 7242RY	34.8	abcd
ACX SS7078Y	33.3	bcde
GSS 2259P	33.0	cdef
Sentinel	32.5	cdef
Protégé	32.3	cdef
Rising Sun	31.5	cdefg
HMX 9386	31.3	cdefg
ACX SS7501Y	30.8	defg
Overland	29.8	efg
HMX 9388	29.8	efg
GSS 9299	28.8	fg
ACX SS7403RY	27.5	g
Rana	27.5	g
Juggernaut	27.5	g
Samurai	21.3	h
p-value	***<0.0001***	
LSD	**4.36**	

Table 13. 2010 Processing Sweet Corn Early Supersweet Trial: Moisture Samples Up To and Including Harvest

		Percent Moisture of Samples Up to and Including Harvest*						
		6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul
Variety	**DTH**	**85**	**86**	**87**	**88**	**89**	**90**	**91**
ACX SS7403RY	85	**70.3**						
ACX SS7078Y	85	**71.5**						
Protégé	85	**74.0**						
ACX SS7501Y	87	74.31		**71.9**				
ACR 7242RY	87	76.51		**73.3**				
GSS 9299	87	71.67		**73.9**				
ACX 7195MRY	88	77.45			**73.2**			
Rising Sun	88			75.85	**74.9**			
HMX 9386	91							**74.4**
Sentinel	91	79.75		80.74				**75.2**
Galaxy	91	82.94		78.86				**76.2**
Overland	91			78.06				**76.9**
GSS 2259P	91			81.92				**79.2**

* Numbers in bold are final harvest averages of four replications; other numbers based on a sample of five ears from a single rep.

Table 14. 2010 Processing Sweet Corn Late Supersweet Trial: Moisture Samples Up To and Including Harvest

		Percent Moisture of Samples Up to and Including Harvest*							
		2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug
Variety	**DTH**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Rana	73	**69.5**							
Sentinel	74	67.99	**70.3**						
Galaxy	74	66.52	**73.6**						
HMX 9386	74		**?**						
ACX SS7078Y	75	69.24		**66.0**					
ACX SS7403RY	75	68.28		**68.7**					
Juggernaut	75			**69.0**					
HMX 9388	75			**69.5**					
Samurai	75	73.86		**70.3**					
ACX SS7501Y	75	71.37		**70.7**					
GSS 9299	75	67.59		**73.2**					
ACR 7242RY	75	72.9		**73.6**					
Fortitude	77	75.14				**69.8**			
ACX 7195MRY	77	75.46				**70.8**			
Rising Sun	77	74.44				**71.7**			
Protégé	77	75.37				**72.7**			
GSS 2259P	80			78.1					**70.2**
Overland	80			74.3					**72.3**

* Numbers in bold are final harvest averages of four replications; other numbers based on a sample of five ears from a single rep.

Table 15. 2010 Processing Sweet Corn Early Supersweet Trial: Yield and Harvest Data

Variety	Days to Harvest	Weight Unhusked Ears (tons/A)	Weight Husked Ears (tons/A)	Weight Cut Corn (lbs/A)	Percent Recovery	Percent Moisture	# Ears per Acre	# Ears per Plant
ACX 7195MRY	88	8.626 a	5.920 a	5224 a	29.7 ab	73.2 def	19602 cde	0.84 bc
Galaxy	91	7.216 a	5.256 ab	4214 ab	28.8 ab	76.2 bc	17714 def	0.76 cd
Sentinel	91	6.187 a	4.995 ab	3955 abc	33.0 a	75.2 bcd	17134 ef	1.00 b
ACX SS7501Y	87	7.924 a	5.403 ab	3862 abc	24.1 bc	71.9 efg	23958 abc	0.99 b
Overland	91	7.712 a	5.640 ab	3796 abc	24.2 bc	76.9 ab	19602 cde	0.87 bc
GSS 2259P	91	7.653 a	5.481 ab	3540 bc	22.7 cd	79.2 a	21925 abcd	0.95 bc
HMX 9386	91	6.819 a	4.986 ab	3296 bcd	24.2 bc	74.4 bcde	20183 bcde	1.39 a
ACX SS7403RY	85	7.780 a	5.051 ab	3038 bcd	19.3 cde	70.3 g	25555 a	1.01 b
ACX SS7078Y	85	7.402 a	5.057 ab	2695 bcd	17.6 def	71.5 fg	23813 abc	1.02 b
GSS 9299	87	6.925 a	4.217 bc	2480 cd	17.6 def	73.9 cdef	21199 abcde	1.05 b
ACR 7242RY	87	4.385 a	3.023 c	1937 d	21.5 cd	73.3 def	14956 f	0.61 d
Protégé	85	7.315 a	4.766 ab	1882 d	12.8 f	74.0 cdef	24248 ab	1.06 b
Rising Sun	88	6.058 a	4.469 abc	1824 d	15.0 ef	74.9 bcd	20618 bcde	0.86 bc
p-value		***0.0605***	***0.0430***	***0.0018***	***<0.0001***	***<0.0001***	***0.0008***	***<0.0001***
LSD		**NA**	**1.4620**	**1573.90**	**6.05**	**2.62**	**4533.3**	**0.2278**

Table 16. 2010 Processing Sweet Corn Late Supersweet Trial: Yield and Harvest Data

Variety	Days to Harvest	Weight Unhusked Ears (tons/A)	Weight Husked Ears (tons/A)	Weight Cut Corn (lbs/A)	Percent Recovery	Percent Moisture	# Ears per Acre	# Ears per Plant
ACX 7195MRY	77	9.360 bcde	7.446 ab	8252 a	44.2 a	70.8 abcde	17569 defg	0.81 i
ACR 7242RY	75	11.806 a	8.140 a	7933 ab	33.5 defg	73.6 *	25265 ab	1.25 bc
Overland	80	8.793 cdefg	7.224 ab	7156 abc	40.7 abc	72.3 abcd	18586 cdef	1.08 cdefg
GSS 2259P	80	8.892 cdef	7.140 bc	6671 abcd	37.5 bcd	70.2 bcde	18586 cdef	0.97 ghi
Rising Sun	77	8.773 cdefg	6.402 bcd	6472 bcd	36.9 cde	71.7 abcde	17860 defg	0.98 ghi
ACX SS7501Y	75	10.370 abc	6.347 bcd	6068 cde	29.1 fgh	70.7 *	26136 a	1.46 a
GSS 9299	75	8.538 defg	6.345 bcd	6043 cde	34.9 cdef	73.2 ab	19021 cdef	1.14 bcdefg
Galaxy	74	8.889 cdef	7.224 ab	5959 cde	33.5 defg	73.6 a	22070 bc	0.99 fgh
ACX SS7078Y	75	7.790 efgh	6.178 bcd	5795 cde	37.4 bcd	66.0 *	20473 cd	1.06 defg
Fortitude	77	6.381 hi	4.715 ef	5552 cde	43.3 ab	69.8 cde	12342 h	1.24 bcd
HMX 9388	75	8.721 defg	6.360 bcd	5524 cde	31.8 defgh	69.5 *	19457 cdef	1.13 bcdefg
Protégé	77	8.988 cdef	6.997 abc	5099 de	28.2 gh	72.7 abc	20328 cd	1.09 cdefg
Juggernaut	75	9.509 bcd	6.310 bcd	5072 de	26.6 h	69.0 *	18731 cdef	1.18 bcde
HMX 9386	74	7.935 defg	6.200 bcd	too mature at harvest - could not be cut			19602 cdef	1.08 cdefg
ACX SS7403RY	75	8.105 defg	5.871 cde	4988 de	30.5 fgh	68.7 e	19892 cde	1.27 b
Sentinel	74	7.225 ghi	5.280 def	4709 e	31.9 defgh	70.3 bcde	15827 fgh	0.84 hi
Rana	73	7.648 fghi	5.262 def	4649 e	30.5 fgh	69.5 de	16262 efgh	1.02 efgh
Samurai	75	6.042 i	4.352 f	4447 e	37.1 cd	70.3 *	14520 gh	1.16 bcdef
p-value		***<0.0001***	***<0.0001***	***0.0006***	***<0.0001***	***0.0478***	***<0.0001***	***<0.0001***
LSD		**1.6109**	**1.2923**	**1730.8**	**5.92**	**3.17**	**4027.1**	**0.1801**

*****Only two replications were tested for percent moisture on this date. Consequently these varieties were not included in the statistical analysis for % moisture.

Table 17. 2010 Processing Sweet Corn Early Supersweet Trial: Ear Characteristics

Variety	Ear Weight (g)	Ear Length (cm)	Ear Diameter (cm)	Kernel Depth (cm)	Mean # of Rows	Median # of Rows
ACX 7195MRY	271 a	22.1 a	4.9 a	1.0 bc	18.4 ab	18
Galaxy	268 ab	21.1 b	4.7 bc	1.1 a	17.9 abc	18
Sentinel	265 abc	20.8 b	4.8 ab	1.1 ab	17.8 abc	18
Overland	265 abc	21.3 b	4.6 cd	1.0 ab	18.6 a	18
GSS 2259P	227 bcd	21.1 b	4.6 cd	1.0 ab	17.2 cd	18
HMX 9386	225 cd	22.1 a	4.6 cde	0.9 c	15.8 e	16
ACX SS7501Y	205 de	19.7 cd	4.5 def	0.9 cd	16.0 e	16
Rising Sun	199 de	19.5 cd	4.2 gh	0.8 ef	17.6 bc	18
ACX SS7078Y	191 de	21.2 b	4.2 gh	0.8 f	16.1 e	16
ACR 7242RY	181 e	19.9 cd	4.2 h	0.8 ef	17.6 bc	18
GSS 9299	180 e	19.9 cd	4.4 ef	1.0 abc	16.6 de	16
Protégé	179 e	20.1 c	4.4 fg	0.9 de	17.6 bc	18
ACX SS7403RY	178 e	19.4 d	4.1 h	0.8 e	15.9 e	16
p-value	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	
LSD	**42.5**	**0.66**	**0.16**	**0.07**	**0.89**	

Table 18. 2010 Processing Sweet Corn Late Supersweet Trial: Ear Characteristics

Variety	Ear Weight (g)	Ear Length (cm)	Ear Diameter (cm)	Kernel Depth (cm)	Mean # of Rows	Median # of Rows
ACX 7195MRY	386 a	23.6 a	5.5 a	1.3 bcd	17.2 bc	18
Overland	354 ab	23.1 ab	5.5 a	1.4 a	18.1 a	18
GSS 2259P	348 abc	23.1 ab	5.2 b	1.3 b	17.2 bc	18
Fortitude	343 bcd	21.3 ef	5.3 b	1.3 bcd	17.5 ab	18
Rising Sun	325 bcde	21.5 de	5.1 bcd	1.3 cde	17.3 abc	18
Protégé	314 cdef	22.1 cd	5.0 cde	1.3 bcd	16.9 bcde	18
Juggernaut	310 cdef	22.5 bc	4.9 efg	1.2 def	16.8 bcde	16
GSS 9299	304 defg	20.1 g	5.1 bcd	1.3 bcd	16.6 cdef	16
Sentinel	301 efg	20.5 g	5.0 def	1.2 efg	16.3 defg	16
HMX 9388	300 efg	21.8 de	5.0 def	1.2 def	15.7 ghi	16
Galaxy	297 efg	22.5 bc	4.8 fg	1.1 hi	17.4 abc	18
Rana	293 efg	20.0 g	4.8 g	1.2 fg	14.9 i	14
ACR 7242RY	292 efg	20.7 fg	4.9 efg	1.2 def	17.1 bcd	16
HMX 9386	288 efg	23.5 a	4.9 efg	1.2 efg	16.2 efg	16
ACX SS7078Y	282 fg	21.8 cde	5.0 cde	1.3 def	16.1 efg	16
Samurai	275 fg	20.6 fg	4.8 g	1.1 i	15.9 fgh	16
ACX SS7403RY	268 g	20.4 g	5.1 bc	1.3 bc	16.6 cdef	16
ACX SS7501Y	219 h	20.7 fg	4.9 efg	1.2 gh	15.1 hi	16
p-value	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	***<0.0001***	
LSD	**40.4**	**0.73**	**0.17**	**0.06**	**0.84**	

Table 19. 2010 Processing Sweet Corn Early Supersweet Trial: Plant Characteristics

Variety	Plant Height (cm)	Height of 1st Ear (cm)
GSS 2259P	245 a	104 a
Sentinel	219 b	70 bc
HMX 9386	214 bc	51 e
Galaxy	213 bc	68 cd
Overland	208 cd	73 b
ACR 7242RY	202 de	65 cd
Rising Sun	201 e	63 d
ACX 7195MRY	191 f	44 f
GSS 9299	187 fg	54 e
Protégé	185 fg	51 e
ACX SS7078Y	184 g	42 f
ACX SS7403RY	182 g	40 f
ACX SS7501Y	175 h	40 f
p-value	***<0.0001***	***<0.0001***
LSD	**6.6**	**5.9**

Table 20. 2010 Processing Sweet Corn Late Supersweet Trial: Plant Characteristics

Variety	Plant Height (cm)	Height of 1st Ear (cm)
GSS 2259P	254 a	116 a
Sentinel	237 b	78 c
HMX 9388	221 cd	72 cde
ACR 7242RY	221 d	77 c
ACX 7195MRY	216 de	57 f
HMX 9386	213 e	55 fg
Rising Sun	210 e	69 de
Overland	210 e	83 b
Galaxy	203 f	73 cd
Juggernaut	203 f	68 e
Samurai	203 f	68 de
ACX SS7403RY	198 fg	54 fg
Protégé	197 g	58 f
ACX SS7078Y	196 g	51 g
Rana	188 h	59 f
ACX SS7501Y	186 hi	43 h
GSS 9299	185 hi	59 f
Fortitude	182 i	51 g
p-value	***<0.0001***	***<0.0001***
LSD	**8.3**	**5.1**

Appendix A: Weather Conditions During the Early Supersweet Trial and the Late Sugary and Sugary Enhanced Trial

Weather Data from DEOS Weather Station (http://www.deos.udel.edu/index.html) at the Carvel Research and Education Center, Georgetown, DE

Date	Days After Planting		Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
	Early Supersweet Trial	Late Sugary & Sugary Enhanced Trial					
12-Apr	0		70.8	45.9	0	67.5	55.4
13-Apr	1		56	39.9	0.04	57.4	52.6
14-Apr	2		62.3	38.1	0	66.5	48.6
15-Apr	3		70.8	38.7	0	66.6	48.5
16-Apr	4		84	53.4	0	69.9	54.8
17-Apr	5		66.1	41.9	0	67.2	56
18-Apr	6		56.9	37.6	0	62.1	50.6
19-Apr	7		64.3	38.1	0	65.3	49.7
20-Apr	8		68	36.7	0	66.6	50.1
21-Apr	9		64.1	46.4	0.15	60.8	53.3
22-Apr	10		70.7	45.9	0	70.2	53.2
23-Apr	11		68.9	47.4	0	68.8	56.2
24-Apr	12		65.2	39.6	0	66.7	51.7
25-Apr	13		74.2	50	0.24	67.1	56
26-Apr	14		58.2	50.8	0.3	62.6	57.1
27-Apr	15		63.9	44.3	0.06	64.5	54.2
28-Apr	16		57.6	36.2	0	57.9	48.5
29-Apr	17		67.4	43.9	0	64	48.1
30-Apr	18		80.5	45.2	0	72.3	51
1-May	19		87.6	61	0	75.1	58.6
2-May	20		85.4	69.6	0	75.6	65.9
3-May	21		80.8	70	0	72.8	68.2
4-May	22		82.9	60.4	0	74.7	66.4
5-May	23		80.9	52.5	0	77.2	60.7
6-May	24		85.6	62.2	0	79	66.1
7-May	25		77	49.7	0	79.2	60.2
8-May	26		83.5	58	0	78.2	65
9-May	27		60.9	43.9	0	71.9	59.5
10-May	28		61.8	37.3	0	73.3	53.5
11-May	29		58.8	35	0.12	63.6	52.5
12-May	30		79	50	0.06	75.9	55.1
13-May	31		64.9	48.7	0	74.6	57.2
14-May	32		85.6	53.1	0.37	80.2	59.9
15-May	33		75.1	56.1	0	77.8	65.1
16-May	34		71.3	54.3	0	77.5	61.8
17-May	35		63.7	49.5	0.03	66.8	59.8

Date	Days After Planting		Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
	Early Supersweet Trial	Late Sugary & Sugary Enhanced Trial					
18-May	36		58.3	51.2	1.12	62.3	57.3
19-May	37		65.9	51.7	0	70.9	57.1
20-May	38		77.6	51.1	0	74.8	57.7
21-May	39		86.2	54.2	0	82.1	60.3
22-May	40		76.4	58.5	0	77.9	64.7
23-May	41		72.9	60.6	0	78	67.2
24-May	42		70.6	60	0	75.9	67.1
25-May	43	0	75.6	58.9	0	82.4	67.2
26-May	44	1	87.4	54.1	0	85.7	64.8
27-May	45	2	80.9	59.2	0	86	70.6
28-May	46	3	74.3	58.9	0	80.8	68.4
29-May	47	4	82.1	59.5	0	79.6	67.6
30-May	48	5	87.3	66.3	0	87.3	69.3
31-May	49	6	91.3	63.2	0	88.3	70
1-Jun	50	7	85.5	69.8	0	86	74.2
2-Jun	51	8	89.3	68.2	0	91.7	71.8
3-Jun	52	9	88.4	69.3	0	93.4	74.5
4-Jun	53	10	89.8	68.1	0	95	74
5-Jun	54	11	90.5	75.3	0	95.3	78.2
6-Jun	55	12	90.3	67	0	94.6	78.2
7-Jun	56	13	76.1	58.9	0	93.7	70.4
8-Jun	57	14	76.5	55.7	0	93.6	68.4
9-Jun	58	15	72.3	57.3	0	76.1	71.3
10-Jun	59	16	87.2	68.8	0	93.4	70.6
11-Jun	60	17	80.3	60.2	0	97.8	71
12-Jun	61	18	86.6	61.9	0	97.3	73.1
13-Jun	62	19	92.4	73.8	0	100.1	78
14-Jun	63	20	87.3	68	0	95.2	76.1
15-Jun	64	21	78.6	67.7	0	92.4	74.9
16-Jun	65	22	83.3	66.7	0	90.5	73.6
17-Jun	66	23	85.5	66.5	0	98.3	75.6
18-Jun	67	24	82.9	57.9	0	95.1	71
19-Jun	68	25	88.1	61.2	0	98.3	71.7
20-Jun	69	26	93.7	72	0	102.1	77.7
21-Jun	70	27	90.5	66.6	0	99.4	76.9
22-Jun	71	28	92.8	66.3	0	102.3	76.6
23-Jun	72	29	91.9	68.5	0	96.9	74.9
24-Jun	73	30	94.7	74.1	0	98.3	78.5
25-Jun	74	31	87.3	71	0	96.9	76.2
26-Jun	75	32	89.1	67.4	0	96.1	74.8
27-Jun	76	33	94.3	73	0	101.2	77.4
28-Jun	77	34	94.9	76.8	0.23	101.8	81.7
29-Jun	78	35	88.6	76.3	0.05	91.1	79.7

Date	Days After Planting		Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
	Early Supersweet Trial	Late Sugary & Sugary Enhanced Trial					
1-Jul	80	37	77.4	57.3	0	94.4	70.5
2-Jul	81	38	78.8	53.7	0	93.2	70.2
3-Jul	82	39	85.1	55.4	0	97.8	70.1
4-Jul	83	40	90.7	63	0	99.6	72.4
5-Jul	84	41	96	68	0	101	75.4
6-Jul	85	42	100.5	68.9	0	103.7	77.8
7-Jul	86	43	95.5	72.8	0	103.9	80.3
8-Jul	87	44	84.3	73.4	0	92.9	82.5
9-Jul	88	45	87.4	71.8	0.02	97.4	79.1
10-Jul	89	46	76.9	70.3	1.15	83.5	75.8
11-Jul	90	47	86.9	68.5	0.01	91.5	72.5
12-Jul	91	48	88.1	67.5	0	91.2	72.6
13-Jul		49	86.8	73.5	0.31	90.9	77.5
14-Jul		50	81.3	72.5	0.03	86	77.1
15-Jul		51	88.1	71.3	0	94.9	74.5
16-Jul		52	93.4	73.2	0	97	77.7
17-Jul		53	91.1	75.1	0	98.3	80.4
18-Jul		54	92.3	72.8	0	99.9	79.3
19-Jul		55	88.6	74.9	0	94.2	81.3
20-Jul		56	92.2	73.4	0	101.2	79.6
21-Jul		57	90.7	73.6	0	101.2	81.7
22-Jul		58	91.2	72.1	0	103.8	80.2
23-Jul		59	94.8	72.1	0	105.9	81.3
24-Jul		60	97.9	79.7	0	108.9	85
25-Jul		61	97.9	72.2	0.09	109.1	83.7
26-Jul		62	84.7	66.9	0	101.7	77.4
27-Jul		63	88.3	61.5	0	101.2	74.5
28-Jul		64	89.8	72.9	0	101.5	80.7
29-Jul		65	90.8	74.4	0.78	99.3	81.1
30-Jul		66	81.9	65.1	0	93.1	72.2
31-Jul		67	85.7	60.4	0	98.3	70.4
1-Aug		68	80.9	66.3	0.08	91	74.7
2-Aug		69	81.8	68.5	0	89	75.7
3-Aug		70	87.5	65.3	0	98.4	74.8
4-Aug		71	88.8	73.8	0	97.8	79.5
5-Aug		72	94.4	73.8	0.36	103.1	80.3
6-Aug		73	88.5	69.2	0	93.4	76.2
7-Aug		74	87.2	64	0	98.4	72.2
8-Aug		75	89.2	65.6	0	100.3	74.4
9-Aug		76	92.2	71.1	0.01	103.5	79.6

Appendix B: Weather Conditions During the Early Sugary Trial

Weather Data from DEOS Weather Station (http://www.deos.udel.edu/index.html) at the Laurel Airport, Laurel, DE (less than 1 mile from the trial location)

Date	Days After Planting	Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
13-Apr	0	56.7	39.9	0.04	58	53.9
14-Apr	1	63	37.9	0	62.5	50.9
15-Apr	2	70.3	36.5	0	63.1	51.1
16-Apr	3	83.1	53.7	0	66.1	55.4
17-Apr	4	66.3	41.9	0	66.3	57.9
18-Apr	5	56.2	33.3	0	62.1	53
19-Apr	6	63.7	36.4	0	64.3	52.4
20-Apr	7	68.2	35.4	0	64	52.2
21-Apr	8	61.7	42.8	0.1	58.4	53.6
22-Apr	9	70.1	45.7	0.04	66.6	54.2
23-Apr	10	69	43.5	0	66.3	56.5
24-Apr	11	67	39.5	0	62.7	54.1
25-Apr	12	74.6	51.1	0.2	63.7	56.9
26-Apr	13	59.5	51.8	0.27	61.2	57.8
27-Apr	14	64.6	45.1	0.08	64.8	57
28-Apr	15	57.3	33.4	0	61.2	51.8
29-Apr	16	67	39.3	0	63.8	51.4
30-Apr	17	79	43.8	0.01	67.1	53.4
1-May	18	86.6	58.1	0	68.9	58.2
2-May	19	84.8	68.2	0	69.3	63.3
3-May	20	80.6	67.2	0	68.1	65.2
4-May	21	82.7	58.2	0	71.3	63.6
5-May	22	81.2	50.4	0	72.8	60.3
6-May	23	85.7	56.7	0	74.4	64.2
7-May	24	76	46.1	0	72.8	60
8-May	25	83.9	57.3	0	74	63.8
9-May	26	61	40.9	0	69.4	59.9
10-May	27	62	37.3	0	70.4	55.7
11-May	28	59.5	32.7	0	61.6	55.1
12-May	29	78.7	50.3	0	70.2	56.9
13-May	30	64.2	49.1	0.02	68.1	58.3
14-May	31	83.9	53.2	0	72	60.3
15-May	32	76	53.3	0	74.9	64.8
16-May	33	73.2	52.4	0	71.8	62.3
17-May	34	61.8	47.4	0.06	64.2	60.5
18-May	35	58.5	51	0.96	61.4	57.7
19-May	36	65.3	51.9	0	66.7	58.4
20-May	37	78.2	48.7	0	72.7	58.5
21-May	38	86	51.6	0	75.4	60.6
22-May	39	77.2	58.4	0	73	63.9

Date	Days After Planting	Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
23-May	40	75.8	61.1	0	71.7	65.9
24-May	41	75.2	61	0	73.7	65.6
25-May	42	77	58.6	0	74.7	66.4
26-May	43	87	52.4	0	77.1	63.2
27-May	44	84.5	59.8	0	77	67.1
28-May	45	76.5	59.4	0.14	77.8	66.2
29-May	46	80.8	59.9	0	75.6	66.2
30-May	47	87.4	64.9	0	80.3	67.1
31-May	48	91.1	62.8	0	79.5	67.4
1-Jun	49	85.2	69.3	0.48	78	70.6
2-Jun	50	88.2	67.7	0	82.3	68.5
3-Jun	51	87.1	67.5	0.13	81.5	71
4-Jun	52	88.8	68	0	83.9	71.2
5-Jun	53	90.8	76	0	81.6	74.3
6-Jun	54	90.3	69.9	0.04	80.2	74.1
7-Jun	55	75.8	57.4	0	79.8	69.1
8-Jun	56	75.9	54.5	0	78.9	67.1
9-Jun	57	74.3	57.5	0.01	70.8	68.5
10-Jun	58	87.9	65.3	0	79.8	68.3
11-Jun	59	82.8	59.2	0	80.6	68.7
12-Jun	60	87.9	61.8	0	80.2	70
13-Jun	61	92	73.9	0	84.3	73.1
14-Jun	62	88.4	70	0	83.8	74.6
15-Jun	63	80.3	68.2	0	82.4	74.1
16-Jun	64	84.6	67.2	0.01	79.1	73.1
17-Jun	65	86.4	68.5	0	85	73.3
18-Jun	66	83.2	54.4	0	82.8	70.3
19-Jun	67	89.1	59.9	0	82.7	70.4
20-Jun	68	93	70.2	0	85.6	74
21-Jun	69	91.3	65.5	0	87.3	73.3
22-Jun	70	93.6	64.7	0.29	86.3	73.8
23-Jun	71	92.9	68.1	0	87.7	74.6
24-Jun	72	96.5	74.6	0.44	87.2	76.8
25-Jun	73	88.1	70.8	0	87	75.8
26-Jun	74	90.6	66.6	0	84.3	74.2
27-Jun	75	95	70.9	0	87.2	75.3
28-Jun	76	97	77.5	0.14	88.3	78.6
29-Jun	77	90.6	76.4	0.01	86.4	78.3
30-Jun	78	80.3	56.4	0.01	84.7	74.9
1-Jul	79	79.1	54.8	0	85.2	70.6
2-Jul	80	79.4	52.5	0	84.5	69.8
3-Jul	81	85	53.2	0	86	69.4
4-Jul	82	91.2	59.9	0	87.5	71
5-Jul	83	96.5	66.6	0	89.6	73.5
6-Jul	84	100.9	67.2	0	91.8	75.4
7-Jul	85	96.9	69.9	0	91.8	77.2

Date	Days After Planting	Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
8-Jul	86	86.5	71.8	0	85.1	79.6
9-Jul	87	85.4	71.9	0.26	86.7	77

Appendix C: Weather Conditions During the Late Supersweet Trial

Weather Data from DEOS Weather Station (http://www.deos.udel.edu/index.html) at Viola, DE (approximately 6 miles from the trial location)

Date	Days After Planting	Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
21-May	0	90.5	54.2	0	72.5	61.8
22-May	1	78.9	59.3	0	72.5	65.4
23-May	2	71.3	61.4	0.05	69.7	66.6
24-May	3	74.8	61	0.03	70.1	66.3
25-May	4	80.9	57.4	0.01	75.8	66.8
26-May	5	90.5	54.2	0	76.7	65.6
27-May	6	83.8	60	0	78.6	69.3
28-May	7	74.7	56.5	0.1	73.8	68.2
29-May	8	81.4	58	0.01	72.7	67.4
30-May	9	85.9	63.9	0.01	76.9	67.9
31-May	10	93.6	60.5	0	79	68.4
1-Jun	11	88	69.6	0	78.4	72.1
2-Jun	12	91	67.2	0	80.4	71.4
3-Jun	13	90.3	66.3	0.07	81	72.8
4-Jun	14	92.1	66.8	0	81.9	73.1
5-Jun	15	89.6	72.4	0.24	81.2	75
6-Jun	16	91.4	67.8	0.05	80.6	75.2
7-Jun	17	75.2	54.9	0	75.9	70
8-Jun	18	75.2	52.7	0	74.1	66.9
9-Jun	19	69.5	51.9	0	69.1	67
10-Jun	20	86.7	66.2	0	75.3	67.6
11-Jun	21	83.2	61.6	0	76.5	68.1
12-Jun	22	89.5	61.7	0	78.8	69.7
13-Jun	23	92.3	70.8	0	81.2	73.1
14-Jun	24	86.3	69.7	0	79.6	74.9
15-Jun	25	81.7	66.8	0	76.8	73.4
16-Jun	26	81.3	66.7	0.56	76.1	71.9
17-Jun	27	83.4	64.9	0	78.6	72.9
18-Jun	28	86.2	55.7	0	78.3	69.3
19-Jun	29	91.1	58.6	0	78.7	69.6
20-Jun	30	92.8	69.5	0	81.7	73.6
21-Jun	31	90.6	66.6	0	81.4	73.4
22-Jun	32	94.9	64.6	1.23	81.4	73.6
23-Jun	33	92.8	68.5	0	82.5	74.6
24-Jun	34	96.7	72.2	0.81	83.9	77
25-Jun	35	89.7	68.7	0	82.8	76.1
26-Jun	36	91.6	65.8	0	82.1	75.2
27-Jun	37	95.5	70.6	0	83.8	76.3
28-Jun	38	97.2	76.6	0.18	84.1	78.5
29-Jun	39	89.7	73.2	0	83.2	78.9

Date	Days After Planting	Max Temp (°F)	Min Temp (°F)	Rainfall (inches)	Max Soil Temp (°F)	Min Soil Temp (°F)
30-Jun	40	79	57.5	0	79.3	74.3
1-Jul	41	78	56	0	76.6	70.4
2-Jul	42	79.1	53	0	76.3	68.8
3-Jul	43	86.6	54.7	0	77.7	68.6
4-Jul	44	94.9	60.2	0	79.7	70.1
5-Jul	45	95.9	64.1	0	81.4	72.4
6-Jul	46	103.3	69.2	0	84	74.8
7-Jul	47	99.1	70.9	0	84.4	76.6
8-Jul	48	86.5	71	0	81	77.3
9-Jul	49	86.8	69.5	0.08	80.3	75.5
10-Jul	50	75	70.2	1.32	78.2	75.4
11-Jul	51	87.8	66.1	0.09	81	74.2
12-Jul	52	90.1	64.1	0	78.9	73.2
13-Jul	53	89.2	70.9	1.61	80.4	75.7
14-Jul	54	83.2	70.3	1.18	78.7	75.9
15-Jul	55	91.4	69.7	0	81.5	75.4
16-Jul	56	95.6	73.2	0.01	84	77.2
17-Jul	57	92	73.9	0	85	78.7
18-Jul	58	93.3	71.1	0	85.6	78.2
19-Jul	59	91.7	72	0.18	85.1	79.1
20-Jul	60	90.8	71.5	0.09	84.9	78.5
21-Jul	61	91.2	72.4	0	84.8	79.2
22-Jul	62	89.6	70.4	0	84.8	78.6
23-Jul	63	96.8	71.2	0	86.6	78.3
24-Jul	64	98	79	0	87.8	80.7
25-Jul	65	96.6	69.6	0.65	88.3	81
26-Jul	66	84.8	64.4	0	84.2	77.5
27-Jul	67	89.5	62.1	0	82.2	75.3
28-Jul	68	91.3	71.1	0	83.7	77.2
29-Jul	69	92.7	75.3	0	83.7	78.7
30-Jul	70	82.8	61.4	0	81.6	76.4
31-Jul	71	87.9	57.8	0	81.5	73.1
1-Aug	72	85.4	63.8	0	81	75.4
2-Aug	73	83.8	62.5	0.01	78.7	74.9
3-Aug	74	89	64.1	0	80.5	74.5
4-Aug	75	90.6	74.6	0.48	82.1	76.6
5-Aug	76	94.2	73.3	0.04	84.2	78.1
6-Aug	77	88.8	67	0	83.5	78.5
7-Aug	78	88.7	60.7	0	81.2	75
8-Aug	79	92.6	64.7	0	83.4	74.9
9-Aug	80	94.2	69.5	0	84.1	77