N. Y. S. 2013 PROCESSING SWEET CORN VARIETY REPLICATED AND OBSERVATION (su and supersweet type) TRIAL SUMMARY

James Ballerstein - Research Support Specialist, Horticultural Sciences
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

Stephen Reiners - Associate Professor, Horticultural Sciences
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

The trial was located at the Vegetable Research Farm in Geneva, NY. The objective was to harvest su gene type at 72-75% moisture and the supersweet type at 75-78% moisture. Plot size for the replicated entries was 2 rows, 40 feet in length, and 30 inches between the rows. Four replications of early su type cultivars (11) were planted on 5/8. These early su cultivars were planted again along with mainseason su cultivars on 6/5. A single planting of the supersweet type (four replications) was planted on 6/22. Yield data were taken from a single harvest of a 15 feet section of each of the two rows (30 row feet total). A subsample of 15 ears was used for ear data.

Observation plot size was 2 rows, 40 feet in length, and 30 inches between the rows. There were two plots of each cultivar at each planting. Planting dates were the same as the replicated plots. All plantings were sowed with a Monosem vacuum planter with double disc openers. The fertilizer used was a 10-5-10 (with Mn and Zn) at a rate of 350 lbs. per acre. Fertilizer was banded two inches below and two inches to the side of the seeds at planting. Bicep Lite (at the labeled rate) was applied post emergence for weed control. Desired population was 20,900 plants per acre (10 inches in row spacing). One cultivation was done and 400 pounds of 22-0-0 per acre were sidedressed. The varieties GH9597 and GH4927 from Syngenta Seeds were used as standards for the su type. Overland from Syngenta Seeds was used as the supersweet standard.

Spring and summer rainfall were above average disrupting my planting schedule. Temperatures were a bit below average other than a very hot period the middle of July. The early su planting was planted into good soil conditions and emergence was good. Frequent rains soon after planting delayed herbicide application and cultivation. Weeds were an issue in this planting. The second su planting was planted in a different field that had some rougher soil. Emergence was not as uniform as I would have liked and there were gaps. Nitrogen was applied over the row, as I normally do it, but it rained hard that night before it could be incorporated. I should have reapplied as Nitrogen deficiency was evident later in the summer. **The supersweet planting was planted into optimum soil and emergence and weed control were good. This was the best corn planting of the three.** Heat units over the entire growing season were about average. See Weather Summary table. The bacterial disease Stewarts Wilt was minimal to nonexistent. Common Smut and Common Rust infection were minimal. NCLB was again evident although it probably did not affect yield. This disease seems to be more common and a bit more severe the past few years.

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Jim Ballerstein 315-787-2223
jwb2@cornell.edu

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Table 1. Cultivar List

Su Type	Seed Source	Trial type
GH4927 (std)	Syngenta	rep
ZUY2673OQ	Crites	rep
Prelude	Crites	rep
SC1263	Seminis	rep
GH3333	Syngenta	rep
GH9394	Syngenta	rep
CSUYP8-339	Crookham	ob
Genesis	Harris Moran	rep
HM 2390	Harris Moran	rep
GH 9597	Syngenta	rep
HMX 0398	Harris Moran	rep
HMX 1377	Harris Moran	rep
Rocker (18K)	Syngenta	rep
Rocker (20K)	Syngenta	rep
Enterprise	Crites	rep
HMX 2380	Harris Moran	rep
HMX 2379	Harris Moran	rep
Early Cogent	Syngenta	rep
Tamarack	Crookham	ob
CSUYP10-437	Crookham	ob

Supersweet Bicolor

BSS8040	Syngenta	rep
BSS5362 as std	Syngenta	rep

White

WSS3681	Syngenta	rep
Ice Queen	Harris Moran	rep
CSHWP9-371	Crookham	ob

Supersweet Yellow	Seed Source	Trial type
Owatonna	Harris Moran	rep
HMX 0372S	Harris Moran	rep
HMX 0375S	Harris Moran	rep
HMX 0376	Harris Moran	rep
HMX9389	Harris Moran	rep
Protégé (std)	Syngenta	rep
XTH1079	IFSI	rep
XTH1679	IFSI	rep
Yosemite (HMX0397)	Harris Moran	rep
Klondike (HMX9388)	Harris Moran	rep
SV1339SK	Seminis	rep
SV1365SK	Seminis	rep
SV1514SK	Seminis	rep
SV6814SK	Seminis	rep
SV5291SK	Seminis	rep
GSS1453	Syngenta	rep
Overland (std) (18K)	Syngenta	rep
Overland (std) (20K)	Syngenta	rep
GSS17877	Syngenta	rep
ZHY2786OQ	Crites	rep
ZHY2795OR	Crites	rep
ACR 3081MR	A&C	rep
ACR 3083MR	A&C	rep
ACX 3780MR	A&C	rep
Var 3590MR	A&C	rep
WI11 5652	A&C	ob
WI 12 9026	A&C	ob
ACR 3188MR	A&C	ob
Marvel Edge	Crookham	ob
Rana R	Crookham	ob

IFSI - Illinois Foundation Seed,
rep - replicated, ob - observation (not processed)

Table 2. Maturity -Early Su planting date 5/8

Cultivar	Days To Silk	Heat units to silk	Days to Harvest	Heat units to harv.	% moist.
Genesis	68	1039	92	1473	69.9
GH4927 (std)	67	1017	91	1456	71.1
2673	67	1017	91	1456	71.9
SC1263	68	1039	91	1456	71.5
CSUYP8-339	68	1039	92	1473	71.0
Prelude	68	1039	91	1456	74.8
HM 2390	72	1126	97	1567	72.8
GH3333	73	1156	97	1567	74.5
GH9394	73	1156	98	1586	73.4

Mainseason Su planting date 6/5

Cultivar	Days To Silk	Heat units to silk	Days to Harv.	Heat units to harv.	% Moist. At Harv.	*Seed Source Maturity*
Genesis	58	1064	85	1529	68.7	74
GH4927 (std)	58	1064	84	1509	72.5	75
2673	59	1082	86	1553	71.7	74
SC1263	60	1100	85	1529	72.0	73
Prelude	62	1128	89	1619	70.8	78
CSUYP8-339	64	1158	89	1619	70.3	76
HM 2390	63	1141	91	1663	70.8	78
GH9394	64	1158	91	1663	72.0	79
GH3333	64	1158	91	1663	74.3	80
Rocker (18K)	66	1203	92	1675	68.7	85
Rocker (20K)	66	1203	97	1717	67.2	85
HMX 1377	66	1203	92	1675	70.2	85
Enterprise	67	1222	93	1691	69.8	85
HMX 2380	66	1203	93	1691	69.7	83
Tamarack	64	1158	93	1691	70.3	83
HMX 0398	67	1222	93	1691	72.0	85
CSUYP10-437	69	1252	96	1713	69.5	83
Early Cogent	70	1271	96	1713	66.3	89
GH 9597	69	1252	96	1713	71.2	83
HMX 2379	67	1222	96	1713	71.3	81

Days to silk - The number of days from planting until plots had 50% of the plants showing silks.

Heat Units to Silk -Growing Degree Day Units Base 50 Degrees F. - The accumulation of degree day units from planting until silk.

Days to harvest - The number of days from planting until harvest.

Heat Units to Harvest - Growing Degree Day Units Base 50 Degrees F. The accumulation of egree day units from planting until harvest.

% Moisture at Harvest - Percent Moisture of the harvest sample - A slurry of cut kernels was dried to determine the percent moisture.

Table 3. Ear and Kernel Ratings Main Su planting date 5/8

Cultivar	Ear Unif. Rating	Ear Shape Rating	Oval / Round Rating	Kernel Rowing Rating	Kernel size Rating	Kernel Depth (mm)	Kernel Depth Rating	Row #	Pericarp Rating	Flavor Rating
Genesis	G	CY-SLT	R	ST	M	10	S-M	12_20	S-OK	OK-G
GH4927 (std)	G-VG	CY	R	ST-SLI	M	11	S-M	14-18	OK	OK
2673	G-VG	CY-SLT	R	ST-SLI	M	11	M	14-22	OK	OK-G
SC1263	VG	CY-SLT	R	ST-SLI	M	11	M	14-20	S-OK	OK-G
CSUYP8-339	VG	CY-SLT	R	ST-SLI	M	11	S-M	16-20	OK-T	OK
Prelude	G	SL T	R	ST-SLI	S-M	11	S	16-20	OK	OK-G
HM 2390	G	SL T-T	R-SL O	SL I	S-M	11	M	14-24	OK-T	OK
GH3333	G-VG	CY-SLT	R	ST	M	11	M	14-22	OK-T	OK
GH9394	VG-EX	CY	R	ST	M	11	S-M	14-20	S-OK	OK
6/5 su planting										
Genesis	F-G	CY	R	ST-SLI	M	10	S	14-22	OK-T	OK-G
GH4927 (std)	VG	CY	R	ST-SLI	M	10	M-D	14-20	OK-T	OK
2673	G	CY	R	ST	S-M	8	S-M	16-22	OK-T	OK-G
SC1263	G-VG	T	R	ST-SLI	M	10	M	16-22	S-OK	OK
Prelude	G	CY-SLT	R	SLI	M	11	M	16-22	OK-T	OK
CSUYP8-339	G	SL T	R	ST-SLI	M	10	M	18-22	OK-T	OK
HM 2390	G	SL T	R-SL O	SLI	S	10	M-D	16-22	T	OK
GH9394	VG	SL T	R	SL I	M	11	M	14-20	S-OK	OK
GH3333	VG	SL T-T	R	ST-SLI	M	10	M	16-22	OK	OK
Rocker (18K)	G-VG	CY	R	ST	M	10	M	14-20	OK	OK
Rocker (20K)	G	CY	R	ST	M	10	M	16-22	OK-T	OK-G
HMX 1377	G	CY	R	ST	S-M	10	S-M	18-22	OK-T	OK
Enterprise	G	CY-SLT	R	ST-SLI	M	10	M	16-20	OK-T	OK
HMX 2380	VG	CY-SLT	R	ST-SLI	S-M	10	S-M	16-22	OK	OK
Tamarack	G-VG	SL T	R	SL I	M	10	M	16-22	OK-T	OK
HMX 0398	VG	CY-SLT	R	SL I	S-M	10	M	16-22	OK-T	OK
CSUYP10-437	VG	SL T	R	ST	M	11	M	16-20	OK-T	OK
Early Cogent	G	T	R	IRR	S	10	M-D	na	T	OK
GH 9597	VG	CY	R	ST-SLI	M	11	M	16-22	T	BL-OK
HMX 2379	G-VG	SL T	R-SL O	ST-SLI	M	13	M-D	16-22	OK-T	OK

Ear Uniformity (Rating) – Ex=excellent (entire sample was the same length, diameter and uniform tip fill); VG=very good; G=good; F=fair; P=poor

Ear Shape Rating - CY=cylindrical; Sl T=slightly tapered; T=tapered.

Oval/round (Rating) – R=round; Sl O=slightly oval; O=oval.

Kernel Rowing (Rating) – (The straightness of the rows of kernels.) St=straight; SL I=slightly irregular; IRR=quite irregular.

Kernel Size Rating – S=small, M=medium, L=large

Kernel Depth - The measurement of how deep the kernel was in millimeters (determined from breaking five earsin two and measuring the kernel depth.)

Kernel Depth (Rating) – S=shallow, M=moderate, D=deep

Row # - The number of rows around an ear listed as a range. Row number and ear diameter are an indication of the kernel size.

Flavor (Rating) – Bl=Blah, OK=acceptable, Good=better than acceptable, SW=sweet

Pericarp (Rating) – S=soft, OK=acceptable, T=tough

Column Descriptions for Tables 4 and 8.

Husk Extension - The measurement in inches of the distance from the tip of the cob to where the husk opens. A negative measurement indicates exposed kernels. Exposed kernels can make the ear more susceptible to insect or bird feeding.

Ear Length - The measurement in inches of the husked ear butt to tip.

Ear Diameter - The measurement in inches of the diameter of the middle of the ear.

Kernel Row Range – The range of the number of rows counted on the ear sample.

Unfilled Tip - The measurement in inches of the tip of the ear that had not formed kernels.

Weight. per Unhusked Ear - The weight in pounds of an unhusked ear. (Total yield weight divided by total number of ears harvested.) Comparing (weight per unhusked ear from total harvest) to the sample unhusked weight per ear indicates how valid the sampling technique is.

Sample Wt. per Unhusked Ear - The weight in pounds of an unhusked ear based on the sample 15 ears brought in from the field.

Sample Husked ear weight – The weight in pounds of a husked ear based on the sample.

Sample Kernel Weight per ear – The weight in pounds of the kernels cut from the ear.

Plants per acre – Plant Population per acre of the harvested plot (multiply number in the column by 1000). Harvest plot was one row by 20 ft per replication.

Ears per plant – The number of ears harvested divided by the number of plants in the harvest area.

Moisture percentage – Percent Moisture of the harvest sample - A slurry of cut kernels was dried to determine the percent moisture.

Tons per Acre - The extrapolated yield of the plot listed as tons per acre. Harvest plot was two rows by 15 ft (30 row feet) per replication.

Table 4. Ear and Yield Data - Early su planting date 5/8

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Cob Diam. (in)	Unfill. Tip (in)	Wt. Per Ear Unhusk. (lbs)	(Sample) Unhusk. Wt. Per Ear (lb)	(Sample) Husked Ear Wt. Per Ear	Sample Kernel Weight Per Ear	Plants Per Acre (1000)	Ears Per Plant	% Moist	Tons Per Acre	Recov. (%)	Over. Ear Rating (Sample)
Genesis	1.8	8.2	1.7	1.3	0.8	0.78	0.79	0.57	0.26	20.3	0.94	69.9	7.5	33	3
GH4927 (std)	0.8	7.6	1.7	1.3	0.4	0.72	0.71	0.51	0.18	20.6	0.94	71.1	7.0	25	3.4
2673	1.4	7.7	1.8	1.3	0.9	0.75	0.74	0.53	0.25	20.2	0.92	71.9	7.1	33	3.4
SC1263	0.4	7.7	1.8	1.3	0.7	0.75	0.73	0.59	0.28	20.5	0.99	71.5	7.6	38	4
CSUYP8-339	1.2	7.8	1.7	1.3	0.6	0.65	0.68	0.49	0.18	22.7	0.92	71.0	6.8	26	4
Prelude	0.7	7.7	1.7	1.3	0.4	0.65	0.67	0.50	0.16	20.6	0.95	74.8	6.4	24	4
HM 2390	0.3	8.8	1.7	1.4	0.6	0.79	0.83	0.64	0.23	21.1	0.91	72.8	7.6	28	3.5
GH3333	0.9	8.4	1.8	1.3	0.3	0.85	0.88	0.65	0.31	20.5	0.98	74.5	8.5	35	3.75
GH9394	1.8	8.0	1.7	1.3	0.3	0.74	0.76	0.56	0.25	20.9	0.96	73.4	7.4	33	4.25

Table 4 Continued next page

Heading descriptions on page 6

Table 4. Ear and Yield Data - Main su planting date 6/5

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Cob Diam. (in)	Unfill. Tip (in)	Wt. Per Ear Unhusk. (lbs)	(Sample) Unhusk. Wt. Per Ear (lb)	(Sample) Husked Ear Wt. Per Ear (lb)	Sample Kernel Weight Per Ear (lb)	Plants Per Acre (1000)	Ears Per Plant	% Moist	Tons Per Acre	Recov. (%)	Over. Ear Rating (Sample)
Genesis	1.2	7.9	1.8	1.3	0.8	0.79	0.84	0.57	0.25	20.1	0.79	68.7	6.2	30	2.7
GH4927 (std)	0.2	8.3	1.8	1.4	0.2	0.90	0.93	0.64	0.25	20.1	0.88	72.5	8.0	27	4
2673	0.7	7.8	1.8	1.3	0.8	0.78	0.85	0.61	0.29	21.1	0.84	71.7	6.9	34	3.5
SC1263	0.2	8.1	2.0	1.3	0.3	0.87	0.95	0.70	0.35	20.7	0.87	72.0	7.9	37	3.5
Prelude	0.4	7.5	1.9	1.3	0.1	0.79	0.80	0.57	0.31	21.3	0.90	70.8	7.5	38	3.5
CSUYP8-339	0.5	7.4	1.8	1.3	0.3	0.72	0.77	0.53	0.21	22.1	0.74	70.3	5.8	28	3
HM 2390	0.3	8.2	1.8	1.3	0.6	0.84	0.86	0.66	0.29	17.8	0.99	70.8	7.4	33	3.5
GH9394	0.5	8.1	1.8	1.2	0.1	0.84	0.85	0.60	0.30	19.9	0.89	72.0	7.5	35	4
GH3333	0.6	8.2	1.8	1.3	0.4	0.92	0.94	0.65	0.31	16.3	0.91	74.3	6.8	33	4
Rocker (18K)	1.4	7.9	1.8	1.3	0.6	0.85	0.86	0.62	0.28	18.2	0.93	68.7	7.1	33	3.5
Rocker (20K)	2.0	7.7	1.9	1.3	0.8	0.87	0.93	0.63	0.33	21.1	0.93	67.2	8.5	35	3.5
HMX 1377	1.0	7.8	1.8	1.3	0.7	0.84	0.87	0.61	0.29	20.7	0.91	70.2	7.8	33	3.5
Enterprise	0.7	8.5	1.8	1.3	1.2	0.87	0.90	0.51	*	19.9	0.94	69.8	8.2	*	3.5
HMX 2380	0.8	7.9	1.7	1.3	0.1	0.78	0.81	0.63	*	19.9	0.94	69.7	7.3	*	3.7
Tamarack	1.1	8.2	1.9	1.3	0.6	0.90	0.98	0.69	*	20.6	0.96	70.3	8.9	*	3.7
HMX 0398	0.3	8.6	1.8	1.3	0.4	0.88	0.91	0.66	*	20.7	0.93	72.0	8.4	*	4
CSUYP10-437	0.9	8.1	1.9	1.3	0.4	0.81	0.95	0.68	0.33	19.7	0.96	69.5	7.7	34	3.7
Early Cogent	1.5	7.3	1.9	1.3	0.5	0.80	0.84	0.61	0.29	19.6	0.89	66.3	7.0	35	3
GH 9597	1.0	7.6	1.9	1.3	0.1	0.77	0.80	0.63	0.32	20.3	0.99	71.2	7.7	39	4
HMX 2379	1.4	8.0	2.0	1.4	0.0	1.06	1.10	0.78	0.40	20.5	0.98	71.3	10.7	36	3.7

* these numbers were roughly half of all others. All were done on the same day. Possibly we had a balance issue.

Table 5. Plant Characteristics su type (based on the 6/5 planting)

Cultivar	Plt. Unif. Rating	Tillars Rating	Lodging	Ear Position	Rust Rating	NCLB Rating	Plt. Ht. (in.)	Ear Ht. (in.)
Genesis	G-VG	F-L	N	30	N	SL	88	20
GH4927 (std)	VG	N-S	N	30	N	MOD	78	15
2673	G-VG	N-S	N	30	SL	SL-MOD	81	16
SC1263	VG	N-S	N	30	N	SL	75	18
Prelude	G-VG	F-L	N	30	SL	SL	78	17
CSUYP8-339	VG	F-L	N	30	N	SL	78	18
HM 2390	VG	N-S	N	45	N	SL-MOD	84	20
GH9394	VG	N-S	N	30	N	SL-MOD	88	19
GH3333	G-VG	N-S	N	30	N	SL	90	18
Rocker (18K)	VG	N-S	N	45	N	SL	107	22
Rocker (20K)	VG	N-S	N	45	N	SL	103	24
HMX 1377	VG	N-S	N	30	N	SL	93	24
Enterprise	VG	N-S	N	30	N	SL	103	23
HMX 2380	VG	N-S	N	45	N	SL	89	22
Tamarack	VG	N-S	N	30	N	SL	86	22
HMX 0398	VG	N-S	N	30	N	SL	84	20
CSUYP10-437	VG	N-S	N	30	N	SL	88	23
Early Cogent	G	N-S	N	30	N	SL	98	27
GH 9597	VG	F-L	N	45	N	SL	80	18
HMX 2379	VG	N-S	N	45	N	SL	97	21

Plant Uniformity – Ex=excellent, VG=very good, G=good
Tillars – N-S=none to small, F-L=few large ones, S-L=some large tillars, M-L=many large tillars
Ear Position – (This may influence mechanical harvest) 30=30 degree from stalk,
45=45 degree from stalk and so on
Lodging - N= none, Sl=slight goosenecking at base of plant
Common Rust Rating – N= no symptoms seen, Sl=only a few rust pustules noted,
lerate level of rust infection, SEV=severe amount of rust
:ion (30% or higher of leaf surface had rust pustules
NCLB Rating – N=None; Sl-minor lesions, MOD=moderate level of infection
SEV=severe
(.5-1 % decrease in yield for each 1% leaf area infected (starts with base of 15% leaf area
infection) true for both rust and NCLB
Plant Heights – The measurement of the plant in inches from the base of the stalk to the top of
tassel. Ten plants were measured from each plot.
Ear Heights – The measurement from the base of the stalk to the node at the base of the primary
ear. Ten plants were measured from each plot.

Additional comments su type (plant type comments based on 6/5 planting)

Genesis – Early season, slender plants but no problems with lodging; slender ears with good husk protection; a few ears broke when husking; did better in the early planting (more uniform); good yield early planting.

GH 4927 (std) – Commercial standard; early to midseason; moderate NCLB (some plants severe) symptoms in second planting; good plant; continues to look good; good tip fill; did not recover as well as some years; good yield in both plantings.

2673 – Early to midseason maturity; two bad plots in the early planting hurt overall grade – looked very good in other two; ears not filled but uniformly so; recovery was in the higher range for both plantings; yield dropped off in the second planting; showed enough promise to look at again under better conditions.

SC1263 – Early to midseason; good plant type; minimal husk extension; kernel quality quite good (raccoons have destroyed it in previous years but a good fence let me get a good look at it this year.) Good yield and recovery in both plantings (uniformity in second planting was not as good as earlier planting). Worth looking at on a small scale.

Prelude – Early to midseason; good plant; early planting harvested too young which hurt yield and recovery; has been used commercially with good success in past years; ears on the small side; very good tip fill; ear uniformity hurt overall rating in second planting; good yield and recovery second planting.

SSUYP8-339 – Early to midseason; ears on the small side; has looked good in previous years; looked decent in the early planting but it did not yield in the second planting.

HM2390 – Early to midseason; stout plant; long ears with small, darker yellow kernels; a bit of ovalness to the cob; ear uniformity hurt overall rating; decent yield in both plantings; recovery better in the second planting.

GH9394 – Early to midseason; clean, solid plant; some eye spot; cylindrical, slender ears; a couple slightly curved ears; uniformity very good to excellent in the first planting; ratings and measurements very similar in both plantings; good yield and recovery both plantings.

GH3333 – Midseason; good plant type; good plant stand in first planting but off in the second one; long ears with straight rows; very good yield and recovery in the first planting; yield suffered in second planting due to lower population.

Rocker – Mid to main season maturity; clean, solid plant; planted at two populations (hand planted at 18K and machine planted at 20); higher yield at higher populations; ear size similar; not filled but uniformly so; ear uniformity hurt overall ear rating; good recovery.

HMX 1377 – Mid to main season; tall, bushy, solid plant; small kernels in straight rows; ear uniformity hurt overall ear rating; a couple curved ears in the sample; good yield and decent recovery.

Enterprise – Main season maturity; tall, slender plant with ears higher on the plant; long ears that did not fill; very good yield. Kernel weights and recovery percentages not reported as they were half what most others were and were all done on the same day. I suspect we had a balance issue.

HMX 2380 – Main season maturity; tall plant; slender, well filled ears; a bit tapered at the butt end; decent yield. (Kernel weights and recovery percentages not reported as they were half what most others were and were all done on the same day. I suspect we had a balance issue.)

Additional comments su type continued:

Tamarack – Main season maturity; solid plant; long, heavy ears; very good yield. (Kernel weights and recovery percentages not reported as they were half what most others were and were all done on the same day. I suspect we had a balance issue.)

HMX 0398 – Main season maturity; bushy, solid plant; long slender ears with minimal husk extension; very good yield and overall ear rating. (Kernel weights and recovery percentages not reported as they were half what most others were and were all done on the same day. I suspect we had a balance issue.)

CSUP10-437 – Main season maturity; clean, solid plant; good husk extension; good yield and recovery.

Early Cogent – Main season maturity; slender plant; old variety used for white shoepeg corn; small, narrow kernels; harvested quite mature; shorter ears with good husk protection; good yield and recovery.

GH 9597 – Main season maturity; commercial standard; good plant; shorter ears with good husk protection and tip fill; tough pericarp; good yield with the best recovery; very good overall ear rating.

HMX 2379 – Main season maturity; tall, slender plant; heavy, longer ears with larger diameter; excellent husk protection and tip fill; uniformity could be a bit better which hurt overall ear rating; a slight curve on some ears; excellent yield and one of the better recoveries.

Cultivar Descriptions Provided by the Seed Source (Su type)

Genesis *- Harris Moran, 74 days to maturity, yellow su type, plant height 80 inches, ear height 24 inches, 8.3 inch ear length, 14-16 row count, excellent kernel color.*

GH4927 – *Syngenta, 75 days to maturity, stout plant, Rp1i gene for rust resistance, Poast herbicide tolerance.*

ZUY2673 – *Crites, midearly su yellow processor, 74 days to maturity, 7.8 inch ear length, 2.2 inch cob width, average row number 18, plant and ear height both medium, IR for common rust, SU for NCLB, IR for SW and Southern Leaf Blight, tolerant to Accent herbicide, high quality petite kernels.*

SC1263 *– Seminis, yellow se, early season maturity (73 days or 1530 heat units), 74 inch plant height, 22 inch ear height, 8.0 inch ear length, 2.0 inch ear diameter, average row count is 18, HR for common rust(RpD+RpG), IR MDMV, commercially available.*

Prelude – *Crites, 3 days later than Bliss; is an extremely high yielding medium early processing hybrid. Its exceptional quality is unique for its maturity. It is suitable as an early and midseason variety. Prelude has performed well across the USA in the early to mid planting slots. 2-3 days earlier than Jubilee, very sweet with an excellent flavor. Eats like an se type. Field holding ability and hence harvest window is excellent. Cob size is moderate but very consistent. High recovery, Moderated to good stalk strength with reasonable tolerance to stalk rots, can be grown right throughout the season, although is only slightly stronger in the stalk than Jubilee, tolerant to the chemicals Accent and Callisto, moderate multigenic tolerance to rust, moderately susceptible to NLB, MDMV, SW, SLB and Grey Leaf Spot, Worth trialing where you want Jubilee type quality or you need it in an earlier variety, where you want good establishment across a wide range of conditions with improved Smut tolerance and stalk strength, do not plant into high disease pressure times or areas of severe storm activity.*

CSUYP8-339 – *Crookham Co., a first early which will work well later in the season if needed. It will compete with Cahill and 2171. It has old and new rust immunity.*

Cultivar Descriptions from the seed source continued:

HMX 2390 *– Harris Moran, 78 days to maturity, 84 inch plant height, 30 inch ear height, 8.3 inch ear length, 1.8 inch ear diameter, 18-20 rows, yellow su, high yielding, improved disease resistance (fusarium), intermediate resistance to Common rust, susceptible to both MDMV and NCLB, intermediate resistance to Stewarts wilt and Common Smut, medium kernel style developed for processor market.*

GH 9394 – *Syngenta, similar to GH3333 but a few days earlier.*

GH3333 *– Syngenta, 80 days to maturity, i gene for rust, HR for Et, high quality.*

Rocker *– Rogers, su type, 85 days to maturity (1793) heat units, 8.5 ft. plant height, 38 inch ear height, 8.25 inch ear length, 1.85 inch ear diameter, 18-20 rows, 11mm average kernal depthRp1-d & g genes for rust resistance, tolerant to maize dwarf mosaic virus. Poast herbicide tolerance.*

HMX1377 *– Harris Moran, 85 days to maturity, 8.7 inch ear length, 2.1 inch ear diameter, 18-22 row count, R for NCLB and IR for common rust.*

Enterprise – *Crites, main and late season, 85 days to maturity, 8.6 inch cob length, 2.1 inch cob width, average row number 18, tall plants and medium cob height, HR for (PS) AVIR(+D) and G-VIR(+D), HR for SW, MDMV, and Southern Leaf Blight, IR for (PS) D-VIR and NCLB and also Gosses Wilt, tolerant to Callisto, Accent and Laudis, good yield potential under stress, wide harvest window, freezes as both kernel and cob, cans well, excellent color and quality, excellent cylinder with small core, runs through the plant well, late harvest will drive recovery and yield without significant quality loss, tall but has excellent stalk strength, can be planted throughtout the season, widely adaptable.*

HMX 2380 – *Harris Moran, 83 days to maturity, 18-20 row count, HR to MDMV, NCLB and Rust (e gene); 8.25 inch ear length and 2.0 inch ear width.*

Tamarack – *Crookham, 83 day main season SU, competes with 9597, double rust*

HMX0398 *– Harris Moran, 85 days to maturity, 8.7 inch ear length, 2.0 inch ear diameter, 18-20 row count, R for NCLB and MDMV.*

CSUYP10-437- *Crookham, 83 day SU, competes with Rocker, double rust, good NCLB, long ear and good cut off.*

Early Cogent *(white) – Syngenta, mainseason nonrowed corn for shoepeg corn*

GH9597 – *Syngenta, yellow su, 83 days to maturity (1750 Heat units F.), 1.8 inch average ear diameter, 8 inch average ear length, 18-22 row count, 7.5 ft plant height, 36 inch ear height, 11 mm average kernel depth, Rp1-d,g genes for rust resistance, tolerance to NCLB,MDMV and Stewarts wilt, consistent performer late season.*

HMX 2379 – *Harris Moran, 81 days to maturity,*

Table 6. Maturity (Supersweet gene type planting date 6/22)

Cultivar	Days To Silk	Heat units to silk	Days to Harv.	Heat units to harv.	% Moist	*Seed Company Maturity*
Owatonna	52	1058	81	1532	75.3	74
Marvel Edge	54	1090	81	1532	75.0	80
Rana R	54	1090	81	1532	75.8	82
ACR 3081MR	54	1090	82	1560	75.7	81
XTH1079	54	1090	82	1560	75.5	79
XTH1679	55	1099	82	1560	75.7	79
Protégé (std)	56	1111	82	1560	78.8	77
ACX 3780MR	56	1111	82	1560	76.2	82
HMX 0372	57	1124	87	1613	74.2	83
Yosemite	57	1124	87	1613	75.3	82
Klondike	57	1124	87	1613	75.7	83
SV1339SK	57	1124	87	1613	76.0	83
HMX9389	57	1124	87	1613	76.2	81
SV6814SK	57	1124	87	1613	76.7	81
ACR 3083MR	57	1124	87	1613	75.7	83
WI11 5652	57	1124	87	1613	76.0	78
SV1365SK	58	1141	88	1613	79.5	80
SV1514SK	58	1141	88	1613	77.0	81
SV5291SK	58	1141	88	1613	75.5	81
Overland (18K)	60	1178	90	1619	76.2	84
Overland (20K)	58	1141	88	1613	76.3	84
HMX 0376	55	1099	90	1619	74.7	80
WI 12 9026	58	1141	89	1613	75.0	79
GSS17877	58	1141	90	1619	76.7	81
HMX 0375	57	1124	90	1619	75.8	77
Var 3590MR	58	1141	90	1619	74.8	82
2795	61	1199	90	1619	74.7	86
2786	62	1221	90	1619	75.0	86
ACR 3188MR	62	1221	90	1619	77.0	78
Bicolor						
BSS8040	58	1141	90	1619	73.7	80
BSS5362 as std	59	1159	90	1619	73.8	81
White						
Ice Queen	54	1090	82	1560	74.5	77
WSS3681	58	1141	86	1608	74.3	83
CSHWP9-371	57	1124	86	1608	77.3	83

See Table 2 for heading descriptions.

Table 7. Ear and Kernel Ratings (Supersweet planting date 6/22)

Cultivar	Ear Unif. Rating	Ear Shape Rating	Oval / Round Rating	Kernel Rowing Rating	Kernel Size Rating	Kernel Depth (mm)	Kernel Depth Rating	Kernel Row Range	Pericarp Rating	Flavor Rating
Owatonna	VG	CY	R	SL I	M-L	12	M-D	14-18	OK	G
Marvel Edge	G-VG	CY	R	ST- SL I	M-L	11	M	14-18	OK	G
Rana R	VG	CY	R	ST- SL I	M	11	SH-M	14-18	OK-T	G
ACR 3081MR	G	SL T-T	R	ST- SL I	S-M	11	M	18-22	OK	G
XTH1079	VG	CY	R	ST- SL I	M	11	M	16-20	OK-T	G-SW
XTH1679	G-VG	C	R-SL O	ST- SL I	M	11	M	16-22	OK-T	G-SW
Protégé (std)	VG	CY-SL T	R	ST- SL I	M	11	M	14-20	OK	G
ACX 3780MR	VG	SL T-T	R	ST- SL I	S-M	10	M	16-22	OK	G
HMX 0372	VG	CY-SL T	R	ST- SL I	M	11	M	16-20	OK-T	G
Yosemite	VG	SL T	R	ST- SL I	M	11	M	16-20	OK-T	G
Klondike	G-VG	CY-SL T	R	ST- SL I	M	11	M	14-20	OK-T	G
SV1339SK	G-VG	CY-SL T	R	ST- SL I	S-M	11	M	16-20	OK	G-SW
HMX9389	VG	CY	R	ST- SL I	M	11	M	16-22	OK-T	G
SV6814SK	G-VG	SL T	R	ST- SL I	M	12	M-D	14-20	OK-T	G
ACR 3083MR	VG	SL T	R	ST- SL I	M	11	M-D	16-20	OK	G
WI11 5652	F-G	CY	R	ST- SL I	M	11	M-D	16-20	OK	G
SV1365SK	VG-EX	SL T	R	ST- SL I	S-M	12	M-D	16-22	OK	G-SW
SV1514SK	G-VG	SL T	R	ST- SL I	S-M	11	M	16-22	OK-T	G
SV5291SK	VG	CY-SL T	R	ST- SL I	M	11	M	16-22	OK-T	G
Overland (18K)	VG-EX	SL T	R	ST- SL I	M	11	M-D	18-24	OK	G
Overland (20K)	VG	SL T	R	ST- SL I	M	11	M-D	18-22	OK	G
HMX 0376	VG	CY	R	ST- SL I	M	11	M-D	12_20	OK-T	G-SW
WI 12 9026	VG	CY	R	ST	M	11	M	16-20	OK-T	G-SW
GSS17877	G-VG	T	R	ST- SL I	S-M	11	M	16-20	OK-T	BL-OK
HMX 0375	G-VG	CY	R	ST	M	12	M-D	16-20	OK-T	G
Var 3590MR	G	SL T	R	ST- SL I	S-M	11	M	16-22	OK	G-SW
2795	VG	C	R	ST	S-M	11	M-D	16-22	OK	G
2786	VG	CY	R	ST- SL I	M	12	M-D	18-22	OK	G-SW
ACR 3188MR	VG	CY	R	ST	M	11	M	16-20	OK	G-SW
Bicolor										
BSS8040	VG	CY	R	ST- SL I	M	10	M	16-20	OK	G-SW
BSS5362 (std)	G	CY-SL T	R	ST- SL I	M	11	M	14-20	OK	G-SW
White										
Ice Queen	VG	CY-SL T	R	ST	M	10	SH-M	14-18	OK	G
WSS3681	G-VG	CY-SL T	R	ST- SL I	M	11	M	14-20	OK-T	G-SW
CSHWP9-371	VG	SL T	R	ST- SL I	M	11	M	14-16	OK	G

Table 8. Ear and Yield Data (supersweet gene type)

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Cob Diam. (in.)	Unfill. Tip (in)	Wt. Per Ear Unhusk. (lbs)	Sample Unhusk. Wt. Per Ear (lb)	Samp. Husk Wt. Per Ear (lb)	Kern. Wt. Per Ear (lb)	Plants Per Acre (1000)	Ears Per Plant	% Moist	Tons Per Acre	Recov (%)	Over. Ear Rating Sample
Owatonna	1.0	8.2	1.9	1.3	0.8	0.84	0.87	0.67	0.38	21.1	0.97	75.3	8.6	43	4
Marvel Edge	1.6	7.6	1.9	1.3	1.2	0.72	0.74	0.59	0.40	22.1	0.97	75.0	7.7	54	3.5
Rana R	2.0	7.2	1.9	1.3	0.4	0.77	0.79	0.54	0.26	21.8	0.91	75.8	7.6	32	3.5
ACR 3081MR	0.3	7.9	1.9	1.3	1.0	0.74	0.72	0.59	0.32	21.1	0.79	75.7	6.2	45	2.75
XTH1079	2.3	7.5	2.0	1.3	0.3	0.80	0.82	0.66	0.34	21.5	0.95	75.5	8.1	42	4.2
XTH1679	1.6	7.6	1.9	1.3	0.5	0.79	0.82	0.64	0.34	21.1	0.98	75.7	8.2	41	4
Protégé (std)	0.7	7.5	1.8	1.2	0.6	0.76	0.76	0.57	0.30	21.5	0.94	78.8	7.6	39	4
ACX 3780MR	-0.2	8.8	1.9	1.3	1.0	0.89	0.91	0.69	0.32	20.9	0.85	76.2	7.9	35	3.75
HMX 0372	0.6	8.1	1.9	1.3	0.4	0.87	0.79	0.69	0.38	20.3	0.97	74.2	8.6	51	4
Yosemite	1.0	7.7	2.1	1.3	0.3	1.01	1.01	0.72	0.39	21.3	0.97	75.3	10.5	39	4
Klondike	1.1	7.8	1.9	1.3	0.6	0.86	0.86	0.65	0.36	20.7	0.98	75.7	8.8	41	3.5
SV1339SK	1.2	8.2	2.1	1.3	1.1	0.91	0.93	0.76	0.40	20.9	0.95	76.0	9.0	43	3.5
HMX9389	1.9	7.2	1.8	1.3	0.3	0.79	0.78	0.58	0.32	21.5	0.95	76.2	8.0	41	4
SV6814SK	2.1	7.5	1.9	1.3	0.4	0.84	0.85	0.63	0.35	20.7	0.94	76.7	8.2	41	4
ACR 3083MR	-0.9	8.3	2.0	1.3	0.9	0.90	0.89	0.73	0.40	20.9	0.94	75.7	8.9	45	3.7
WI11 5652	0.4	7.8	2.1	1.3	1.2	0.87	0.85	0.68	0.39	20.0	0.96	76.0	8.3	46	2.75
SV1365SK	2.2	7.5	2.1	1.3	0.2	0.89	0.91	0.70	0.42	20.9	0.95	79.5	8.9	46	4.5
SV1514SK	3.0	7.6	2.1	1.3	0.8	0.94	0.95	0.67	0.38	21.3	0.95	77.0	9.6	40	3.75
SV5291SK	1.0	7.4	1.9	1.3	0.1	0.82	0.82	0.62	0.38	21.5	0.97	75.5	8.6	46	4
Overland (18K	0.6	7.9	2.1	1.3	0.1	1.00	0.97	0.76	0.45	18.6	1.04	76.2	9.7	46	4.25
Overland (20K	0.4	7.5	2.0	1.3	0.7	0.82	0.86	0.65	0.37	21.1	0.97	76.3	8.4	43	3.75

Table 8 continued:

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Cob Diam. (in.)	Unfill. Tip (in)	Wt. Per Ear Unhusk. (lbs)	Sample Unhusk. Wt. Per Ear (lb)	Samp. Husk Wt. Per Ear (lb)	Kern. Wt. Per Ear (lb)	Plants Per Acre (1000)	Ears Per Plant	% Moist	Tons Per Acre	Recov (%)	Over. Ear Rating Sample
HMX 0376	1.0	7.7	1.9	1.3	0.4	0.88	0.85	0.68	0.39	21.1	0.99	74.7	9.2	46	4
WI 12 9026	0.9	8.8	2.0	1.3	1.0	0.93	0.98	0.75	0.41	20.6	0.99	75.0	9.5	42	4
GSS17877	0.6	8.5	1.9	1.3	0.7	0.92	0.92	0.67	0.39	21.3	0.95	76.7	9.3	42	3.5
HMX 0375	0.8	7.7	2.0	0.4	0.3	0.97	0.97	0.74	0.43	20.9	1.00	75.8	10.1	44	4
Var 3590MR	0.5	8.6	2.0	1.2	1.2	0.90	0.95	0.48	0.41	20.9	0.92	74.8	8.6	44	3
2795	1.4	8.0	2.0	1.3	0.7	0.90	0.91	0.69	0.39	20.9	0.92	74.7	8.6	42	4
2786	1.3	8.3	1.9	1.3	0.8	0.83	0.88	0.68	0.37	21.3	0.92	75.0	8.1	42	3.75
ACR 3188MR	2.4	8.0	1.8	1.3	0.1	0.86	0.89	0.60	0.30	20.0	0.97	77.0	8.4	34	4
Bicolor															
BSS8040	2.0	7.7	2.0	1.3	0.4	0.84	0.87	0.66	0.36	20.9	0.96	73.7	8.5	41	3.75
BSS5362 (std)	0.7	7.6	1.9	1.2	0.3	0.79	0.80	0.61	0.35	20.9	0.94	73.8	7.7	45	3
White															
Ice Queen	1.1	7.4	1.8	1.3	0.2	0.74	0.73	0.55	0.28	21.3	0.97	74.5	7.7	38	3.5
WSS3681	0.4	7.6	1.8	1.3	0.3	0.74	0.77	0.39	0.31	21.1	0.97	74.3	7.6	40	3.5
CSHWP9-371	0.6	8.1	1.8	1.3	0.4	0.80	0.85	0.63	0.30	20.9	0.92	77.3	7.7	35	4

Column Descriptions page 6

Table 9. Plant Characteristics (Supersweet gene type)

Cultivar	Plt. Unif. Rating	Tillars Rating	Lodging	Ear Position Rating	Rust Rating	NCLB Rating	Plt Ht (in)	Ear ht. (in)
Owatonna	VG	N-S	N	45	N	SL	93	19
Marvel Edge	G-VG	N	SL	30	N	SL	92	20
Rana R	VG	N-S	N	45	N	SL	80	20
ACR 3081MR	VG	N-S	SL	45	N	SL	77	22
XTH1079	VG	N-S	N	30-45	N	SL	82	18
XTH1679	VG	N-S	N	45	N	SL	82	19
Protégé (std)	VG	N-S	N	45	N	SL	81	22
ACX 3780MR	VG	N-S	SL	30	N	N	85	23
HMX 0372	VG	N-S	N	30	N	N	93	22
Yosemite	VG	N-S	N	45-60	N	SL	88	23
Klondike	VG	N-S	N	45	N	SL	91	22
SV1339SK	VG	N-S	N	30-45	N	SL	96	27
HMX9389	VG	N-S	N	45	N	SL	85	22
SV6814SK	G-VG	N-S	N	30-45	N	SL	90	23
ACR 3083MR	VG	N-S	SL	60-90	V SL	SL	89	27
WI11 5652	G-VG	N-S	N	45-60	N	SL	92	22
SV1365SK	VG	N-S	N	45	N	SL	95	25
SV1514SK	VG-EX	N-S	N	45	N	SL	87	24
SV5291SK	G-VG	N-S	N	30	N	SL	87	22
Overland (18K)	VG	N-S	N	60-90	N	N	89	24
Overland (20K)	VG	N-S	N	60-90	N	N	91	24
HMX 0376	VG	N-S	N	45	N	SL	87	21
WI 12 9026	VG	N-S	N	30-45	SL	SL	94	21
GSS17877	VG	S	N	30	N	SL	102	23
HMX 0375	VG	N-S	N	45	SL	SL	85	19
Var 3590MR	G-VG	N-S	N	30	N	N	85	23
2795	VG	S- L	SL	45-60	N	SL	117	26
2786	VG	S	SL	45-60	N	SL	92	25
ACR 3188MR	VG	N-S	N	30	N	SL	85	20
Bicolor								
BSS8040	G-VG	N-S	N	45	N	SL	93	20
BSS5362 (std)	G-VG	N-S	SL	30	SL	MOD-SEV	99	22
White								
Ice Queen	G-VG	S-L	N	45	MOD	SL	87	20
WSS3681	G-VG	N-S	SL	30	SL	MOD-SEV	98	20
CSHWP9-371	VG	N-S	N	30-45	VSL	SL-MOD	102	27

Column descriptions same as Table 5

Additional Comments Supersweet Type (Yellow)

Owatonna – Early season maturity; a few plants minor lodging; good sized ear that didn't fill; kernels on the big side (a bit coarse appearance); very good yield and overall ear rating; good recovery.

Marvel Edge – Early to midseason maturity; very clean plant type; minor lodging; good husk extension; shorter ear that didn't fill; good yield and excellent recovery.

Rana R – Early to midseason maturity; solid, clean plant; long husk extension; short ear with good tip fill; kernels a bit shallow which resulted in lower recovery; good yield.

ACR 3081MR – Early to midseason maturity; clean plant; a few broken plants; minimal husk extension; did not fill; small, deeper kernels resulted in very good recovery; poorer uniformity resulted in unacceptable ear rating; lower yield.

XTH 1079 – Early to midseason maturity; good plant; long husk extension; shorter, large diameter ear with very good fill; rowing a bit rough; very good yield and recovery; very good overall ear rating.

XTH 1679 – Early to midseason maturity; good plant; very similar to 1079 although a hint of oval and not quite as uniform; very good yield and recovery and also overall ear rating.

Protégé – Early to midseason maturity; good plant; moisture cannot be used as a maturity guide; shorter ear with decent fill; very good overall ear rating; decent yield that might have been better if left in the field another few days.

ACX 3780MR – Early to midseason maturity; some plant lodging; some barren plants; long ear with poor husk extension; ear broke from the stalk when shaking the plant; some ears quite tapered; good crunch when eating; very good yield but a lower recovery.

HMX 0372S – Mid to main season maturity; solid plant with no NCLB symptoms; good sized ear with good fill; nice uniformity with good kernel type; very good yield and excellent recovery; very good overall ear rating.

Yosemite – Mid to main season maturity; good plant type; midsize, heavy, large diameter ears with good husk protection and very good tip fill; excellent yield with decent recovery; very good overall ear rating.

Klondike – Mid to main season maturity; good plant; mid sized ear with good husk protection; hint of a curve to some ears; ear uniformity hurt overall ear rating; very good yield with good recovery.

SV1339SK – Mid to main season maturity; clean plant; ear would sometimes snap off if plant was shaken hard; longer, large diameter ears with good husk protection but did not fill; uniformity hurt overall ear rating; very good to excellent yield with very good recovery.

HMX 9389 – Mid to main season maturity; good plant; short, slender ear with long husk protection and good tip fill; nice ear uniformity; very good yield and overall ear rating; good recovery.

SV6814SK – Mid to main season maturity; some minor plant lodging; ear breaks off when shaking the plant; shorter ear with long husk protection and good tip fill; overall ear rating was very good (two samples good to very good and one plot was excellent); very good yield and good recovery.

ACR 3083MR – Mid to main season maturity; clean plant; ears droop 60-90 degrees from the plant similar to Overland; longer, large diameter ear with poor husk protection and did not fill; ears quite tapered; uniformity very good in two of the three samples; very good to excellent yield with very good recovery.

Additional comments supersweet type continued:

WI11 5652 – Mid to main season maturity; clean plant; midsized, large diameter ears that didn't fill; minimal husk extension; poorer ear uniformity resulted in unacceptable ear rating; very good yield and recovery.

SV1365SK – Mid to main season maturity; solid, bushy plant; long husk extension; shorter, large diameter ear with very good tip fill; all three samples looked very good earning it the best overall rating of the supersweets; very good yield and recovery.

SV1514SK – Mid to main season maturity; dark green plant; some minor lodging; midsized, large diameter ear with very long husk extension; was not filled but uniformly so; ear uniformity hurt overall ear rating; excellent yield with good recovery.

SV5291SK – Mid to main season maturity; clean, solid plant; shorter ear with very good to excellent tip fill; good husk protection; quite tapered at the tip; good ear uniformity; very good overall ear rating; very good yield and recovery.

Overland – Main season maturity; planted at both 18 and 20 thousand plant population; ear size, yield and recovery all dropped with higher population; uniformity was better at the lower population; very good yield and recovery.

HMX 0376 – Main season maturity; good plant; good husk protection; variable tip fill; nice ear uniformity which helped earn it a very good overall ear rating; deeper kernels; very good to excellent yield and recovery.

WI12 9026 – Main season maturity; clean, stout plant; long, large diameter ears that did not fill; good husk protection; good ear uniformity; very good overall ear rating; very good to excellent yield and good recovery.

GSS17877 – Main season maturity; tall, good plant; long ears that did not fill; some ears quite tapered; ear uniformity could be better; some curved ears which might affect recovery; low sugars; very good to excellent yield; good recovery.

HMX 0375S – Main season maturity; good plant; large diameter ears with good fill; good husk protection; deep, straight rowed kernels; very tough pericarp; very good overall ear rating although ear uniformity could be better (other traits offset this); excellent yield and very good recovery.

Var 3590MR – Main season maturity; clean plant; long, large diameter ears that did not fill (tip fill excessive on some); smaller, nice kernels; tip fill and lack of ear uniformity hurt overall ear rating; nice crunch when eating; very good yield and recovery.

2795 – Main season maturity; some plants leaning over from weight of the ear; mid sized, large diameter ears; possibly a hint of ovalness; nice looking uniform, ears; nice rowing with smaller kernels; good crunch when eating; overall ear rating very good; very good yield and good recovery.

2786 – Main season maturity; bushy plant; a few broken plants at site of insect injury; longer ears with good husk protection (some excessive); ears not filled; good crunch when eating; good yield and recovery.

ACR 3188MR – Main season maturity; solid plant; ear breaks off from the plant when stalk is shaken; slender ears with good tip fill; long husk protection; very slight curve and shallower kernels may have resulted in lower recovery; tapered butt; very good overall ear rating; good yield.

Bicolor

BSS8040 – Midseason maturity; good plant; long husk protection; good tip fill; good ear uniformity; better overall ear type, plant type and yield but recovery was not as good as 5362.

Additional comments continued supersweet type

Bicolor

BSS5362 – Midseason maturity; moderate to severe level of NCLB symptoms; a few broken plants; good tip fill and kernel color; ears not very uniform; decent yield.

White

Ice Queen – Early to midseason maturity; moderate rust infection; shorter, slender ears with good tip fill; good husk protection; kernel depth a bit shallow which resulted in lower recovery; ear uniformity hurt overall ear rating; one bear paw (genetic – multiple tips) found; decent yield.

WSS3681 – Midseason maturity; moderate to severe level of NCLB symptoms; short, slender, cylindrical ears with good tip fill; nice rowing; lacks ear uniformity; decent yield and recovery.

CSHWP9-371 – Mid to main season maturity; tall, clean plant; slender, tapered ears with good tip fill; decent yield but recovery on lower side; better plant and ear type than 3681 but similar yield and less recovery.

Descriptions Provided by the Seed Source (Supersweets)

Owattona *- Harris Moran, 74 days, 8.5 inch ear length, 16-18 row count, good disease package.*

Marvel Edge – *Crookham, 80 day SH2, double rust, good NCLB, maintain quality in large harvest window, responds to high populations.*

Rana R *– Crookham, 82 days to maturity.*

ACR 3081MR – *Abbott & Cobb, 81 days to maturity, 16-18 row count, HR Common Rust (Rp1G and Rp1I) and NCLB.*

XTH1079 *– Illinois Foundation Seeds, 79 days to maturity (midseason to full season), 85 inch plant height, 29 inch ear height, 8-8.5 inch ear length, 2.0 inch ear diameter, 16-22 average kernel rows, bright yellow kernel color, good tip fill, productive and strong hybrid with excellent resistance to MDMV and new rust (GI alleles).*

XTH 1679 *– Illinois Foundation Seeds, 79 days to maturity (midseason to full season), 85 inch plant height, 29 inch ear height, 8-8.5 inch ear length, 2.0 inch ear diameter, 16-20 average kernel rows, medium to bright yellow kernel color, good tip fill, productive and strong hybrid with excellent resistance to MDMV and new rust (GI alleles).*

Protégé *– Syngenta, 77 days to maturity (1615 heat units), similar to GSS 9299 with newer I gene for rust resistance and better ear uniformity.*

ACX 3780MR – *Abbott & Cobb, 82 days to maturity, 18-20 row count, HR Common Rust (Rp1G and Rp1I) Ht2; IRHt1 and SCLB.*

HMX 0372S *– Harris Moran, 83 day to maturity, 16-18 row count, 8.25 inch ear length, 2 inch ear width, IR for NCLB*

Yosemite – *Harris Moran, 82 days to maturity, strong plant (84 inches tall), cylindrical, attractive ear (8 inch length and 2.0 inch ear diameter, bright yellow kernel color, average row count 16-18, IR for NCLB (Et), MDMV and Common rust.*

Klondike – *Harris Moran, 83 days to maturity, 84 inch plant height, 30 inch ear height, 8.3 inch ear length, 2.0 inch ear diameter, 16-20 row average, IR for rust and NCLB.*

Descriptions provided by the seed source continued:

SV1339SK *– Seminis, yellow sh2, 83 days (1740hu), 80 inch plant height, 28 inch ear height, 9-10 inch ear length, 2.1 inch ear diameter, 18-20 average row count, Anticipated Highly Resistant: Rust Rp1I; Intermediate Resistant: MDMV and Northern Corn Leaf Blight rot. This hybrid will continue to be trialed.*

HMX 9389 – *Harris Moran, 81 day to maturity, 18-20 row count, 7.9 inch ear length, 1.9 inch ear width, HR for MDMV, NCLB and Rust (gfj).*

SV6814SK – *Seminis, discontinued.*

ACR 3083MR – *Abbott & Cobb, 83 days to maturity, 18 row count, HR for Common Rust (Rp1d), NCLB, SW and SCLB.*

WI11 5662 – *Abbott & Cobb, 78 days to maturity, 18 row count, HR MDMV.*

SV1365SK *– Seminis, SH2 yellow, 80 day RM, 1680 heat units, AVG plant ht. 75 inches, Avg ear ht. 24 inches, Avg ear length 8 inches, avg ear diameter 2 inches, Avg row count 18-20, Anticipated Highly Resistant: Rust (RpG). SV1365SK is being sold commercially for the processor market.*

SV1514SK – *Seminis, SH2 yellow, 81 day RM, 1700 heat units, AVG plant ht. 77 inches, AVG ear ht. 27 inches, AVG ear length 8.4 inches, AVG ear diameter 2 inches, AVG row count 18-20, Anticipated Highly Resistant: Rust (RpG5), Intermediate Resistant: MDMV. SV1514SK should have 1st commercial processor sales in 2014.*

SV5291SK – *Seminis, discontinued.*

Overland *– (GSS 3287) – Rogers, 84 days to maturity (1768 heat units), 7 ft plant height, 36 inch ear height, 8.5 inch ear length, 1.85 inch ear diameter, 18-20 rows, 12 mm kernel depth, Rp1i gene for rust resistance, resistance to NCLB, tolerance to MDMV and SW.*

HMX0376S – *Harris Moran, yellow sh2, 80 days to maturity, 8 inch ear length and 2.0 inch ear diameter, 16-18 average row count, IR for NCLB, MDMV and common rust.*

WI12 9026 – *Abbott & Cobb, 79 days to maturity, 18-20 row count, Rp1d gene, Et/IR(Ht1).*

GSS17877 – *Syngenta, 81 day, g gene for rust, MDMV tolerance, longer ear, a bit less sugars for a supersweet.*

HMX0375S *– Harris Moran, 77 days to maturity, 8 inch ear length, 2 inch ear diameter, 16-18 row count, IR for NCLB, MDMV and common rust.*

Var 3590MR – *Abbott & Cobb, 82 days to maturity, 18-20 row count, HR Common Rust (Rp1G and Rp1I) and Ht2; IR for Ht1 and SCLB*

2795 – *Crites, 86 days to maturity, 8.2 inch ear length, 2.0 inch ear width, 18 row count, tall plant, medium cob height, tolerant to Accent, HR for Rust, IR for NCLB and SW and Southern Leaf Blight; SU for MDMV, good vigor, tall strong plant, cylindrical cobs, good color, freezes and cans.*

ZHY2786OQ *– Crites, 86 days to maturity, 8.2 inch ear length, 2.0 inch ear diameter, 18 is average row count, HR for three races of rust, IR for NCLB and SW, SU for MDMV, tolerant to accent, tall, strong plant with cylindrical cobs, good color, good for freezing and canning.*

Descriptions provided by the seed source continued:

ACR 3188MR – *Abbott & Cobb, 78 days to maturity, 18-20 row count, HR for Common Rust (Rp1d), NCLB, SW and SCLB.*

Bicolors

BSS8040 – *Syngenta, 80 days to maturity.*

BSS5362 – *Syngenta, bicolor sh2 type, 83 days to maturity, 8.5 inch ear length, 1.8 inch ear diameter, 18-20 row count, rust resistant.*

White

WSS 3681- Syngenta, white sh2, 83 days to maturity, 8.5 inch ear length, 1.8 inch ear diameter, 18-20 row count, rust resistant, super quality in a white

Ice Queen - *Harris Moran, 77 days to maturity, strong emergence vigor, 84 inch plant ht., 24 inch ear ht., 7.5 inch ear length, 1.9 inch ear width, slightly tapered, 14-16 row count, IR for NCLB, MDMV, Common Rust, Stewarts wilt.*

CSHWP9-371 *– Crookham, 83 day white SH2, competes with 3681 but more consistent.*

Table 10. Weather Summary 2013

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree Days Base 50	acc dd units base 50
4/29/13	72	49	60.5	0.16	0.16	10.5	10.5
4/30/13	59	51	55	0.01	0.17	5	15.5
5/1/13	68	53	60.5	0	0.17	10.5	26
5/2/13	75	48	61.5	0	0.17	11.5	37.5
5/3/13	76	49	62.5	0	0.17	12.5	50
5/4/13	73	47	60	0	0.17	10	60
5/5/13	74	47	60.5	0	0.17	10.5	70.5
5/6/13	76	46	61	0	0.17	11	81.5
5/7/13	74	50	62	0	0.17	12	93.5
5/8/13	77	55	66	0	0.17	16	109.5
5/9/13	69	50	59.5	0.06	0.23	9.5	119
5/10/13	71	50	60.5	0.04	0.27	10.5	129.5
5/11/13	72	52	62	0.8	1.07	12	141.5
5/12/13	63	41	52	0	1.07	2	143.5
5/13/13	53	35	44	0.03	1.1	0	143.5
5/14/13	50	33	41.5	0	1.1	0	143.5
5/15/13	57	35	46	0	1.1	0	143.5
5/16/13	82	38	60	0.07	1.17	10	153.5
5/17/13	77	40	58.5	0	1.17	8.5	162
5/18/13	64	40	52	0	1.17	2	164
5/19/13	70	51	60.5	0	1.17	10.5	174.5
5/20/13	73	58	65.5	0	1.17	15.5	190
5/21/13	84	59	71.5	0	1.17	21.5	211.5
5/22/13	83	62	72.5	1.16	2.33	22.5	234
5/23/13	85	63	74	0	2.33	24	258
5/24/13	75	39	57	0.58	2.91	7	265
5/25/13	48	38	43	0.07	2.98	0	265
5/26/13	56	42	49	0	2.98	0	265
5/27/13	61	47	54	0	2.98	4	269
5/28/13	70	48	59	0	2.98	9	278
5/29/13	65	51	58	0.88	3.86	8	286
5/30/13	83	61	72	0.14	4	22	308
5/31/13	87	64	75.5	0	4	25.5	333.5
6/1/13	91	64	77.5	0	4	27.5	361
6/2/13	89	66	77.5	0.26	4.26	27.5	388.5
6/3/13	80	50	65	0	4.26	15	403.5
6/4/13	64	47	55.5	0	4.26	5.5	409
6/5/13	66	49	57.5	0	4.26	7.5	416.5
6/6/13	69	52	60.5	0	4.26	10.5	427
6/7/13	59	53	56	2.16	6.42	6	433

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree Days Base 50	acc dd units base 50
6/8/13	65	55	60	0.23	6.65	10	443
6/9/13	65	52	58.5	0.02	6.67	8.5	451.5
6/10/13	74	57	65.5	0	6.67	15.5	467
6/11/13	66	61	63.5	0.67	7.34	13.5	480.5
6/12/13	67	55	61	0.18	7.52	11	491.5
6/13/13	73	56	64.5	0.02	7.54	14.5	506
6/14/13	61	49	55	1.02	8.56	5	511
6/15/13	72	55	63.5	0.01	8.57	13.5	524.5
6/16/13	73	57	65	0	8.57	15	539.5
6/17/13	74	60	67	0.09	8.66	17	556.5
6/18/13	80	58	69	0.1	8.76	19	575.5
6/19/13	67	50	58.5	0	8.76	8.5	584
6/20/13	66	45	55.5	0	8.76	5.5	589.5
6/21/13	76	51	63.5	0	8.76	13.5	603
6/22/13	81	55	68	0	8.76	18	621
6/23/13	87	69	78	0	8.76	28	649
6/24/13	90	68	79	0.19	8.95	29	678
6/25/13	88	65	76.5	0	8.95	26.5	704.5
6/26/13	83	68	75.5	0	8.95	25.5	730
6/27/13	84	64	74	0	8.95	24	754
6/28/13	80	64	72	0.15	9.1	22	776
6/29/13	69	61	65	0.2	9.3	15	791
6/30/13	74	60	67	0.5	9.8	17	808
7/1/13	78	63	70.5	0	9.8	20.5	828.5
7/2/13	68	60	64	0.47	10.27	14	842.5
7/3/13	81	61	71	0.16	10.43	21	863.5
7/4/13	84	67	75.5	0.11	10.54	25.5	889
7/5/13	85	68	76.5	0.06	10.6	26.5	915.5
7/6/13	87	68	77.5	0.06	10.66	27.5	943
7/7/13	86	70	78	0.19	10.85	28	971
7/8/13	85	70	77.5	0	10.85	27.5	998.5
7/9/13	84	67	75.5	0.93	11.78	25.5	1024
7/10/13	83	68	75.5	0.17	11.95	25.5	1049.5
7/11/13	86	63	74.5	0.11	12.06	24.5	1074
7/12/13	76	60	68	0	12.06	18	1092
7/13/13	75	62	68.5	0	12.06	18.5	1110.5
7/14/13	80	65	72.5	0	12.06	22.5	1133
7/15/13	88	72	80	0	12.06	30	1163
7/16/13	87	71	79	0	12.06	29	1192
7/17/13	89	67	78	0	12.06	28	1220
7/18/13	92	71	0.05	0.98	13.04	0	1220

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree Days Base 50	acc dd units base 50
7/19/13	88	72	80	0.7	13.74	30	1250
7/20/13	91	68	79.5	0.65	14.39	29.5	1279.5
7/21/13	76	63	69.5	0.08	14.47	19.5	1299
7/22/13	75	59	67	0	14.47	17	1316
7/23/13	78	60	69	0.51	14.98	19	1335
7/24/13	83	61	72	0	14.98	22	1357
7/25/13	65	49	57	0	14.98	7	1364
7/26/13	72	53	62.5	0	14.98	12.5	1376.5
7/27/13	76	56	66	0	14.98	16	1392.5
7/28/13	80	56	68	0.2	15.18	18	1410.5
7/29/13	75	56	65.5	0.16	15.34	15.5	1426
7/30/13	71	56	63.5	0.07	15.41	13.5	1439.5
7/31/13	74	57	65.5	0	15.41	15.5	1455
8/1/13	78	58	68	0	15.41	18	1473
8/2/13	76	60	68	0.05	15.46	18	1491
8/3/13	75	61	68	0.23	15.69	18	1509
8/4/13	75	57	66	0	15.69	16	1525
8/5/13	70	53	61.5	0	15.69	11.5	1536.5
8/6/13	73	54	63.5	0	15.69	13.5	1550
8/7/13	78	56	67	0	15.69	17	1567
8/8/13	78	64	71	0.16	15.85	21	1588
8/9/13	81	66	73.5	0.56	16.41	23.5	1611.5
8/10/13	76	63	69.5	0.3	16.71	19.5	1631
8/11/13	76	52	64	0	16.71	14	1645
8/12/13	74	58	66	0	16.71	16	1661
8/13/13	77	60	68.5	1.45	18.16	18.5	1679.5
8/14/13	73	53	63	0.16	18.32	13	1692.5
8/15/13	66	52	59	0	18.32	9	1701.5
8/16/13	73	51	62	0	18.32	12	1713.5
8/17/13	75	52	63.5	0	18.32	13.5	1727
8/18/13	77	57	67	0	18.32	17	1744
8/19/13	76	60	68	0	18.32	18	1762
8/20/13	80	58	69	0	18.32	19	1781
8/21/13	82	59	70.5	0	18.32	20.5	1801.5
8/22/13	85	60	72.5	0	18.32	22.5	1824
8/23/13	84	57	70.5	0.04	18.36	20.5	1844.5
8/24/13	72	51	61.5	0	18.36	11.5	1856
8/25/13	75	52	63.5	0	18.36	13.5	1869.5
8/26/13	80	58	69	0.03	18.39	19	1888.5
8/27/13	80	67	73.5	0.83	19.22	23.5	1912
8/28/13	84	67	75.5	0	19.22	25.5	1937.5

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Acc Precip.	Degree Days Base 50	acc dd units base 50
8/29/13	82	66	74	0.22	19.44	24	1961.5
8/30/13	82	60	71	0	19.44	21	1982.5
8/31/13	83	60	71.5	0.02	19.46	21.5	2004
9/1/13	82	66	74	0	19.46	24	2028
9/2/13	81	66	73.5	0.2	19.66	23.5	2051.5
9/3/13	84	56	70	0.16	19.82	20	2071.5
9/4/13	68	57	62.5	0	19.82	12.5	2084
9/5/13	77	55	66	0	19.82	16	2100
9/6/13	67	43	55	0	19.82	5	2105
9/7/13	69	43	56	0	19.82	6	2111
9/8/13	67	54	60.5	0.15	19.97	10.5	2121.5
9/9/13	64	44	54	0	19.97	4	2125.5
9/10/13	73	46	59.5	0.01	19.98	9.5	2135
9/11/13	90	66	78	0.11	20.09	28	2163
9/12/13	92	68	80	0.1	20.19	30	2193
9/13/13	76	56	66	0.15	20.34	16	2209
9/14/13	56	48	52	0.1	20.44	2	2211
9/15/13	49	43	46	0	20.44	0	2211
9/16/13	67	43	55	0.07	20.51	5	2216
9/17/13	56	36	46	0.18	20.69	0	2216
9/18/13	62	37	49.5	0	20.69	0	2216
9/19/13	70	42	56	0	20.69	6	2222
9/20/13	75	47	61	0	20.69	11	2233
9/21/13	80	54	67	0	20.69	17	2250
9/22/13	70	49	59.5	0.57	21.26	9.5	2259.5
9/23/13	55	46	50.5	0	21.26	0.5	2260
9/24/13	56	42	49	0	21.26	0	2260
9/25/13	63	43	53	0	21.26	3	2263
9/26/13	68	43	55.5	0	21.26	5.5	2268.5
9/27/13	69	44	56.5	0	21.26	6.5	2275
9/28/13	69	47	58	0.05	21.31	8	2283
9/29/13	71	45	58	0	21.31	8	2291
9/30/13	72	50	61	0	21.31	11	2302
10/1/13	75	52	63.5	0	21.31	13.5	2315.5
10/2/13	74	53	63.5	0	21.31	13.5	2329
10/3/13	76	50	63	0	21.31	13	2342
10/4/13	69	49	59	0.1	21.41	9	2351
10/5/13	73	58	65.5	0	21.41	15.5	2366.5
10/6/13	75	56	65.5	0.35	21.76	15.5	2382
10/7/13	79	58	68.5	0.23	21.99	18.5	2400.5
10/8/13	71	47	59	0.83	22.82	9	2409.5