

NEW YORK STATE 2020 PROCESSING SWEET CORN CULTIVAR TRIAL REPORT (su & sh2 types)

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Procedures and Materials:

Location: Cornell AgriTech (Research North) – Geneva NY

Soil Type: Honeoye silt loam

Planting Dates: su Types – 6/25; Yellow sh2 Types – 6/22; White sh2 Types – 7/02

Row Width: 30 inches, Row length: 40 ft.

In-row Spacing: 11 inches

Fertilizer: 350#/A of 15-5-10 with Mn and Zn

Tillage: Conventional

Herbicide: Dual post plant

Planter - Two Row Monosem Vacuum Planter

Plot Size: 2 row - 4 replications (Replicated entries)

Objectives and Season Summary:

The trials were located at the Cornell AgriTech Vegetable Research Farm in Geneva, NY. The objective was to harvest su gene types at 72-75% moisture and the sh2 types at 75-78% moisture. Plot size for the replicated entries was 2 rows, 40 feet in length, and 30 inches between the rows. Each cultivar has four replications. Yield data were taken from a single harvest of a 20 feet section of each of the two rows (40 row feet total). A subsample of 15 ears were used for ear data.

All plantings were sown with a Monosem vacuum planter with double disc openers. The fertilizer used was a 15-5-10 (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. Desired population was 19,000 plants per acre (11 inches in row spacing). For weed control, Dual was used at the labeled rate pre-emergence. One cultivation was made to enhance weed control and to side-dress N (was done roughly 30 days from planting (400 pounds of 22-0-0 per acre)).

Geneva NY experienced a summer full of dry spells, with June and mid-August being the driest. Planting conditions for both the yellow sh2 types and the su types were dry. Both fields were irrigated once sown. Rain in late June and mid to late July, helped the trials immensely. The white sh2 trial had ideal planting conditions but was planted a bit late and ripening was slowed down with some cool September days. The dry season led to virtually no smut or serious disease injury. Only secondary signs of pathogens were visible far beyond the prime of the crop. Overall, it was a decent sweet corn year for our program, with the sh2 trial being the most vigorous.

**A limited vegetable cutting was held November 19th, 2020. Samples of full cobs and kernels were microwaved and put-on display. A photographer was present and took pictures of the samples. A digital cutting will be made available.*

Table 1: Cultivar List

su Type	Seed Source
SC1263R	Seminis
HMX58SU716	Harris Moran
GH 4927	Syngenta
ZUY4690Y	Crites
Cash	Crites
GH 6055	Syngenta
GH 6462	Syngenta
ZUY1317	Crites
CSUP13-879	Crookham
Generator	Harris Moran

sh2 Yellow Type	Seed Source
4182 MXR	IFIS
Overland	Syngenta
GSS 1453	Syngenta
ZHY22690X	Crites
Messenger	Seminis

sh2 Yellow Type	Seed Source
1972XR	IFIS
Pronghorn	Seminis
HMX59YS718	Harris Moran
Bighorn	Seminis
XTH1679	IFIS
HMX59YS825	Harris Moran
SVSK5160	Seminis
XTH4079	IFIS
GSS3951	Syngenta
Bull Moose	Seminis
GSS 4224	Syngenta
GSS3071	Syngenta
HMX59YS614	Harris Moran
ZHY32780Y	Crites
SVSK5780	Seminis
SVSK3794	Seminis

sh2 White Type	Seed Source
SVSC3333	Seminis
Platinum XR	IFIS
3879 XR	IFIS
Devotion	Seminis

Column Descriptions for Tables 3, 6 & 9:

Ear Uniformity – 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; SLT=slightly tapered; T=tapered

Oval/round – R=round; S=slightly oval; O=oval

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

Kernel Row Range - The number of rows around an ear listed as a range

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

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

Pericarp – S=soft, OK=acceptable, T=tough

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

Plant Heights – The measurement of the plant in inches from the base of the stalk to the top of the tassel.

Ear Heights – The measurement from the base of the stalk to the node at the base of the primary ear.

Column Descriptions for Tables 4, 7, & 10:

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.

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 10 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 two rows 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 20 ft (40 row feet) per replication.

Recovery - (Sample average kernel weight per ear/Sample un-husked weight per-ear)*100

Table 2: SU Maturity Metrics

Cultivar	Days to Silk	GDD to Silk	Days to Harvest	GDD to Harvest	% Moist.	Seed Company Maturity
SC1263R	55	1317	73	1697	69.0	73
HMX58SU716	56	1320	72	1663	73.4	75
GH 4927	56	1320	72	1663	72.6	75
ZUY4690Y	58	1355	75	1718	76.0	83
Cash	58	1355	75	1718	73.5	74
GH 6055	61	1428	78	1798	74.1	76
GH 6462	61	1428	78	1798	73.4	83
ZUY1317	64	1486	81	1866	72.5	83
CSUP13-879	63	1464	83	1913	71.0	84
Generator	64	1486	84	1921	73.3	85

**GDD base 50*

Table 3: Ear and Kernel Observations (su)

Cultivar	Uniformity Rating	Ear Shape	Oval/Round	Kernel Rowing	Kernel Row Range	Kernel Size	Kernel Depth	Peri-carp Rating	Flavor Rating	Plant Height (in)	Ear Height (in)
SC1263R	G	SLT-TP	R	SL IRR	18-22	M	M	OK	OK	83	28
HMX58SU716	G	SLT	R	SL IRR	16-20	M	M	OK	OK	69	22
GH 4927	G-VG	SLT	R	SL IRR	16-20	M	M	OK	OK	75	27
ZUY4690Y	G-VG	SLT-TP	R-SL O	ST	16-20	M	M	OK	OK	78	25
Cash	G-VG	SLT	R	ST-SL IRR	18-22	M	M	OK	OK	75	26
GH 6055	G-VG	SLT	R	ST-SL IRR	16-20	M	M	OK	OK	82	29
GH 6462	G	SLT	R	ST-SL IRR	16-20	M	M	OK	OK	83	28
ZUY1317	G	SLT	R	SL IRR	18-24	M	M	OK	OK	80	27
CSUP13-879	G	SLT	R	SL IRR	18-22	M	M	OK	Ok	79	26
Generator	G-VG	SLT	R	SL IRR	16-20	M	M	OK	OK	72	26

**See page 4 for column descriptions.*

Table 4: Ear and Yield Data (su)

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Unfill. Tip (in)	Wt. per Un-husked Ear(lbs)	Samp. Wt. per Un-husked Ear (lbs)	Samp. Husked Wt. Per Ear (lbs)	Samp. Kernel Wt. Per Ear (lbs)	Plants Per Acre (1000)	Avg. Ears Per Plant	% Moist.	Tons Per Acre	Rec. %
SC1263R	-0.10	8.2	2.1	0.73	0.90	0.96	0.72	0.51	16.9	0.97	69.0	7.3	52.8
HMX58SU716	1.10	7.5	1.9	0.44	0.70	0.75	0.53	0.36	15.2	0.96	73.4	5.2	48.8
GH 4927	0.33	7.9	1.9	0.00	0.84	0.88	0.63	0.41	15.7	0.97	72.6	6.4	46.9
ZUY469OY	0.67	8.2	2.1	0.67	0.90	1.01	0.70	0.42	17.3	0.88	76.0	6.8	41.3
Cash	0.26	7.8	2.0	0.13	0.84	0.95	0.67	0.44	17.1	0.91	73.5	6.5	46.9
GH 6055	-0.28	8.7	2.0	0.58	0.95	0.99	0.75	0.51	16.6	0.93	74.1	7.3	50.9
GH 6462	1.09	8.2	2.0	0.16	0.90	0.89	0.67	0.44	16.3	0.91	73.4	6.7	49.8
ZUY1317	0.04	8.7	2.0	0.13	0.92	1.07	0.75	0.50	15.7	0.92	72.5	7.7	46.4
CSUP13-879	0.25	8.0	2.0	0.13	0.97	1.06	0.75	0.50	16.3	0.93	71.0	7.3	47.5
Generator	0.20	8.7	2.0	0.58	0.96	0.96	0.69	0.48	15.8	0.95	73.3	7.2	49.7

**See page 5 for column descriptions.*

Cultivar Descriptions Provided by the Seed Source (su Type)

SC 1263 – 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.

HMX 89SU716 – Harris Moran, 74 days to maturity, 7.8 inch ear length, 2.1 inch diameter, row count 16-18, IR for Northern corn leaf blight.

GH4927 – Syngenta, 75 days to maturity, ear is 8.5 inches in length and 1.9 in diameter, Rpli gene for rust resistance, Poast herbicide tolerance.

ZUY4690Y – Crites. 83 days to maturity. HR – Common Rust, MDMV IR – NLCB.

Cash – Crites, 78 day maturity (1640 heat units), su yellow processor, 7.7 inch ear, 2.2 inch cob, average row number 18, plant and ear height medium, IR for common rust, Su for NCLB, IR for SW and Southern Leaf Blight, tolerant to Accent herbicide, high quality petite kernels.

GH6055 – Syngenta. 76 days to maturity. Ear is 8.4 inches in length and 2.1 inches in diameter R: PS (Rp1-d) / MDMV.

GH6462 – Syngenta; 83 days to maturity; double rust genes d, g – some NCLB, SCLB, MDMV and Stewarts tolerance; great % recovery and good finished quality and color.

ZUY 1317 – Crites, 83 days to maturity, 8.3 inch cob length, 2.1 inch cob width, ave 20 rows, HIR for common rust AVIR (+D), HR for common rust D-VIR and G-VIR (+D), Su for NCLB, IR for Stewarts Wilt, Southern Leaf Blight and Gosses Wilt, Su for MDMV, excellent vigor, cold start ability, good yield potential, freezes as both cob and kernel, small core, late harvest will improve recovery and yield without significant quality loss, can be planted throughout the season.

CSUP14-879 – Very good yield and recovery; Ears taken back to the facility to test theoretical recovery numbers; High consistent productivity, perfect tip fill, and consistent shape are the hallmark features of this variety; Similar ear style as Daytona and CSAYF13-697 (this is a sh2, but the ear style is similar); HR-Rust / IR-NCLB & MDMV; Cob diameter – 2”, Plant height – 7’, Ear Height – 30”, Ear length – 8”, Full husk protection, 18-22 row count; Its very consistent tip fill will work well for natural cobs/cobettes and the consistent ear shape will help run smoothly through the plant.

Generator – Harris Moran. 85 days to maturity. Ear is 8.75 inches in length and 2 inches in diameter. IR: NCLB, Et, Ps. Pg# 6.

Table 5: Yellow sh2 Maturity Metrics

Cultivar	Days to Silk	GDD to Silk	Days to Harvest	GDD to Harvest	% Moist.	Seed Company Maturity
1972XR	54	1294	72	1673	76.7	72
Pronghorn	56	1340	72	1673	80.8	74
HMX59YS718	57	1361	73	1698	75.0	75
Bighorn	57	1361	74	1717	80.7	77
XTH1679	57	1361	74	1717	76.0	77
HMX59YS825	57	1361	74	1717	77.5	78
SVSK5160	58	1379	77	1768	77.0	80
XTH4079	58	1379	77	1768	75.5	79
GSS3951	58	1379	77	1768	76.9	82
Bull Moose	59	1392	78	1791	78.4	79
GSS 4224	59	1392	79	1813	75.2	81
GSS3071	60	1408	79	1813	76.9	78
HMX59YS614	58	1379	79	1813	78.0	81
ZHY3278OY	58	1379	80	1843	71.6	83
SVSK5780	60	1408	80	1843	71.5	81
SVSK3794	60	1408	80	1843	71.1	83
4182 MXR	60	1408	81	1870	77.9	82
Overland	60	1408	82	1893	75.7	84
GSS 1453	62	1452	84	1939	75.4	83
ZHY2269OX	62	1452	84	1939	73.9	84
Messenger	63	1500	85	1962	77.5	87

*GDD base 50

Table 6: Ear and Kernel Observations (yellow sh2)

Cultivar	Uniform. Rating	Ear Shape	Oval/ Round	Kernel Rowing	Kernel Row Range	Kernel Size	Kernel Depth	Peri-carp Rating	Flavor Rating	Plant Height (in)	Ear Height (in)
1972XR	G	CY-SLT	R	SL IRR	14-20	M	M	OK	OK-G	80	26
Pronghorn	G-VG	SLT	R	SL IRR	16-20	M	M	OK	OK	87	27
HMX59YS718	G-VG	CY-SLT	R	ST-SL IRR	18-22	M	M	OK	OK-G	90	30
Bighorn	G-VG	CY-SLT	R	SL IRR	16-22	M	M	OK	OK-G	87	31
XTH1679	G	SLT	R	SL IRR	16-20	M	M	OK	G	81	25
HMX59YS825	G-VG	SLT	R	ST-SL IRR	16-22	M	M	OK	OK	90	29
SVSK5160	G	SLT	R	ST	14-20	M	M-D	OK	OK-G	89	29
XTH4079	G-VG	CY-SLT	R	SL IRR	18-24	M-L	M-D	OK	OK-G	89	30
GSS3951	G-VG	SLT	R	ST-SL IRR	18-22	M	M	OK	OK-G	89	30
Bull Moose	G-VG	CY-SLT	R	ST-SL IRR	18-22	M	M-D	OK	OK-G	96	33
GSS 4224	G-VG	SLT	R	SL IRR	16-20	M	M	OK	G	92	32

**See page 4 for column descriptions.*

Table 6: Ear and Kernel Observations (yellow sh2) Cont.

Cultivar	Uniform. Rating	Ear Shape	Oval/Round	Kernel Rowing	Kernel Row Range	Kernel Size	Kernel Depth	Peri-carp Rating	Flavor Rating	Plant Height (in)	Ear Height (in)
GSS3071	G-VG	SLT	R	SL IRR	16-20	M	M-D	OK	G	88	31
HMX59YS614	G	CY-SLT	R	SL IRR	16-20	M	M	OK	OK-G	84	26
ZHY3278OY	G	SLT	R	ST-SL IRR	16-20	M	M	OK	OK-G	99	40
SVSK5780	G-VG	SLT	R	ST-SL IRR	16-22	M-L	M-D	OK	OK-G	80	25
SVSK3794	G	SLT	R-SL O	ST-SL IRR	16-20	M	M-D	OK	OK-G	85	32
4182 MXR	VG	CY-SLT	R	SL IRR	18-22	M	M-D	OK	OK-G	90	29
Overland	VG	SLT	R	ST-SL IRR	16-22	M	M	OK	OK-G	88	33
GSS 1453	G	SLT	R	SL IRR	16-22	M-L	M-D	OK	OK-G	89	34
ZHY2269OX	G	SLT	R	SL IRR	18-24	M	M	OK	OK	98	38
Messenger	G-VG	SLT	R	ST-SL IRR	18-22	M	M	OK	OK-G	95	37

Table 7: Ear and Yield Data (yellow sh2)

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Unfill. Tip (in)	Weight Per Un-husked Ear(lbs)	Samp. Wt. Per Un-husked Ear (lbs)	Samp. husked Wt. Per Ear (lbs)	Samp. Kernel Wt. Per Ear (lbs)	Plants Per Acre (1000)	Avg. Ears Per Plant	% Moist.	Tons Per Acre	Rec. %
1972XR	0.77	8.2	2.1	0.29	0.95	1.02	0.76	0.54	17.4	1.01	76.7	8.5	52.9
Pronghorn	0.15	8.3	2.1	0.10	0.94	0.97	0.73	0.48	16.8	1.02	80.8	8.1	49.3
HMX59YS718	1.36	7.7	2.2	0.18	0.90	0.97	0.74	0.51	17.1	0.98	75.0	7.5	50.2
Bighorn	1.78	7.9	2.0	0.03	0.85	0.89	0.68	0.41	16.8	1.00	80.7	7.1	46.3
XTH1679	1.55	8.1	2.0	0.20	0.89	0.94	0.71	0.44	17.3	1.02	76.0	7.9	46.8
HMX59YS825	0.88	8.2	2.0	0.03	0.91	0.99	0.70	0.45	16.4	1.01	77.5	7.5	45.1
SVSK5160	0.20	9.2	2.1	0.27	0.91	1.04	0.80	0.57	16.1	0.96	77.0	7.0	54.9
XTH4079	0.55	8.0	2.3	0.32	0.94	1.03	0.81	0.56	17.4	0.94	75.5	7.7	54.1
GSS3951	1.13	8.3	2.0	0.16	0.78	0.92	0.65	0.43	17.7	1.00	76.9	6.8	47.2
Bull Moose	0.94	8.0	2.1	0.07	0.91	0.92	0.71	0.47	17.1	0.96	78.4	7.4	51.4
GSS 4224	0.85	8.6	2.1	0.24	1.01	1.03	0.76	0.55	17.0	0.96	75.2	8.3	49.6

**See page 5 for column descriptions.*

Table 7: Ear and Yield Data (yellow sh2) Cont.

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Unfill. Tip (in)	Weight Per Un-husked Ear(lbs)	Samp. Wt. Per Un-husked Ear (lbs)	Samp. husked Wt. Per Ear (lbs)	Samp. Kernel Wt. Per Ear (lbs)	Plts. Per Acre (1000)	Avg. Ears Per Plant	% Moist.	Tons Per Acre	Rec. %
GSS3071	0.26	8.0	2.1	0.08	0.85	0.91	0.70	0.51	17.4	0.95	76.9	7.0	56.7
HMX59YS614	0.82	8.3	2.1	0.18	0.99	1.01	0.79	0.55	17.4	1.01	78.0	8.7	49.7
ZHY3278OY	1.73	9.0	2.0	0.84	1.07	1.10	0.75	0.49	16.1	0.92	71.6	8.0	45.9
SVSK5780	1.15	8.9	2.2	0.21	1.07	1.10	0.84	0.59	16.3	0.91	71.5	8.0	53.2
SVSK3794	0.56	9.0	2.1	0.78	1.04	1.10	0.80	0.56	16.6	0.91	71.1	7.8	50.4
4182 MXR	1.30	7.8	2.1	0.19	0.94	0.98	0.71	0.53	17.3	0.92	77.9	7.4	54.0
Overland	-1.01	8.3	2.0	0.21	0.85	0.90	0.72	0.53	17.4	0.88	75.7	6.5	58.4
GSS 1453	0.56	8.4	2.1	0.10	0.88	0.91	0.75	0.53	16.7	0.96	75.4	7.1	58.3
ZHY2269OX	1.05	8.3	2.1	0.14	0.96	1.02	0.78	0.55	15.7	0.95	73.9	7.2	53.7
Messenger	1.65	8.9	2.2	0.22	1.10	1.16	0.86	0.59	16.6	0.96	77.5	8.9	51.5

Descriptions Provided by the Seed Source (sh2)

Yellow sh2 Types

1972XR – IFSI; 72 days to maturity; G for rust resistance, MS for NCLB, early processor with very strong yield and recovery data.

Pronghorn (SVSK5854) – Seminis, advanced to commercial with limited seed in 2019, early hybrid, 74 days, good seed vigor, 85 inch plant height, 26 inch ear height; nice flavor and tenderness, uniform ears, 8.5 inch ear length and 2.05 inch ear diameter; deep kernels; 18 row count; HR for RpG.

HMX59YS718 – Harris Moran, 75 days to maturity, early to main season variety with excellent yield and recovery; girthy ear, HR for Ps and IR for Et.

Bighorn – Seminis. 77 days (1617 HU) to maturity. Average plant height of 87 inches and ear height of 28 inches. Ear is 8 inches in length and 2 inches in diameter. IR: NCLB.

XTH1679 – IFSI, 77 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) MR for NCLB.

HMX59YS825 – Harris Moran, 78 days to maturity, 8.25 inch ear length, 2.1 inch ear diameter, row count 18, IR for Northern corn leaf blight, HR for maize dwarf mosaic, IR for common rust.

SVSK5160 – Seminis. 80 days (1680 HU) to maturity. On average the plant is 91 inches tall with ears being located at about 31 inches. Length of ear is 9.3 inches and 2.41 inches in diameter.

XTH4079 – IFIS. 79 days to maturity. Average plant height of 86 inches and ear height of 27 inches. Moderate resistance to NCLB.

GSS3951 – Syngenta; 82 days to maturity; 8.3 inch ear with 18-20 rows, bright color when cooked, sturdy plant that has shown to take stress and high populations better than most, d and I rust genes; good tolerance to NCLB and expected tol. to Pst.

Bull Moose – Seminis. 79 days (1660 HU) to maturity. Average plant height of 84 inches and ear height of 28 inches. Average length of ear is 8.3 inches and 2.1 inches in diameter.

GSS4224 – Syngenta.

GSS3071 – Syngenta; 78 – 79 days to maturity; d and I rust genes; good tolerance to NCLB and expected tolerance to Pst.

HMX59YS614 – Harris Moran, 81 days to maturity, late season variety bringing yield, ear size and recovery; HR for Ps (Rp1-e) and MDMV; IR for Et.

Descriptions provided by the Seed Source (sh2) Cont.

SVSK5780 – Seminis, 81 day maturity, 1700 heat units, 75 inch plant height, 25 inch ear height, 8.8 inch ear length, 2.1 inch ear diameter, 18 row count, disease resistance pending.

SVSK3794 – Seminis. 83 days (1740 HU) to maturity. Plant is generally 87 inches tall with ears located at 32 inches. Ears are 8.9 inches long and 2.14 inches in diameter. 16-18 row count.

4182MXR – – IFSI, 82 days to maturity, excellent resistance to MDMV and new rust (Gl alleles) MR for NCLB.

Overland – Syngenta; 84 days to maturity (1768 heat units), 7 ft plant height, 28 inch ear height, 9-10 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.

GSS1453 – Syngenta, 84 days to maturity, strong yielding variety with long, quality supersweet ears, 8.5 inch ear length, 2 inch ear diameter, 18 row count, HR for Et/Ps (Rp1-dgi genes) and Pst; IR for Bm/Ps.

Messenger (SVSK1899) – Seminis, commercial with limited seed in 2019, 87 days, excellent husk cover, late maturing with notable standability for easy harvesting; 92 inch plant height; ear height 34 inches, 8.9 inch length and 2 inch diameter ear with excellent kernel depth, suitable for cut kernel and/or corn on the cob packs; uniform ears with consistent taper, great tip fill; deep yellow kernel color, HR for RpG5; IR for MDMV/SCMV/Et.

White sh2 Types

SVSC333 – Seminis. 77 days to maturity. Average plant height is 63 inches with ears being at 20 inches. Average ear length is 7.8 inches with a diameter of 2 inches. 14-18 row count.

Platinum XR – IFIS.

3879XR – IFSI, 81 days to maturity, genes G, D and J for rust resistance, M for NCLB.

Devotion – Seminis; white; 82 days to maturity; 1720 heat units, 8” ear length; 1.9” ear diameter; 18 row count; high quality white sh2 with superb eating quality; IR for Stewarts wilt.

*Abbreviations of Common Sweet Corn Pathogens:

Northern Corn Leaf Blight – Et or NCLB, (Exserohilum turcicum)

Maize dwarf mosaic –MDMV (Maize dwarf mosaic virus)

Common Rust – Ps (Puccinia sorghi)

Stewarts wilt – Pst (Pantoea stewartii (ex. Erwinia stewartii)

Southern corn leaf blight – Bm (Bipolaris maydis(=Helminthosporium maydis))

Table 8: White sh2 Maturity Metrics

Cultivar	Days to Silk	GDD to Silk	Days to Harvest	GDD to Harvest	% Moist.	Seed Company Maturity
SVSC3333	59	1381	82	1781	76.8	77
Platinum XR	61	1406	84	1813	76.4	80
3879 XR	61	1406	84	1813	76.9	81
Devotion	63	1480	88	1891	75.1	82

Table 9: Ear and Kernel Observations

Cultivar	Uniform. Rating	Ear Shape	Oval/ Round	Kernel Rowing	Kernel Row Range	Kernel Size	Kernel Depth	Pericarp Rating	Flavor Rating	Plant Height (in)	Ear Height (in)
SVSC3333	G-VG	SLT	R	SL IRR	14-20	M	M	OK	OK-G	75	23
Platinum XR	G	SLT	R	SL IRR	16-20	M	S-M	OK	OK-G	63	19
3879 XR	G-VG	SLT	R	ST-SL IRR	16-20	M	M-D	OK	OK-G	76	29
Devotion	G	SLT	R	SL IRR	16-20	M	M	OK	OK-G	80	31

**See page 4 for column descriptions.*

Table 10: Ear and Yield Data (White sh2)

Cultivar	Husk Ext. (in)	Ear Length (in)	Ear Diam. (in)	Unfill. Tip (in)	Weight Per Unhusked Ear(lbs)	Samp. Wt. Per Un-husked Ear (lbs)	Samp. husked Wt. Per Ear (lbs)	Samp. Kernel Wt. Per Ear (lbs)	Plants Per Acre (1000)	Avg. Ears Per Plant	% Moist.	Tons Per Acre	Rec. %
SVSC3333	1.45	7.66	1.98	0.2	0.88	0.93	0.65	0.46	16.26	0.86	76.8	6.5	49.4
Platinum XR	1.5	8.17	2.03	0.58	0.88	0.93	0.65	0.43	16.26	0.86	76.4	6.5	46.3
3879 XR	1.7	7.73	2.03	0.43	0.89	0.95	0.65	0.43	16.69	0.93	76.9	7.1	45.5
Devotion	1.05	8	2.04	0.17	0.9	0.94	0.67	0.45	16.55	0.91	75.1	6.9	48.1

**See page 5 for column descriptions.*

Table 8. Weather Summary for Geneva NY

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Monthly Acc. Precip.	Degree days base 50	Acc. dd units base 50
6/1/20	68	44	57	0	0	-	-
6/2/20	67	57	62	0.11	0.11	-	-
6/3/20	77	60	68	0.12	0.23	-	-
6/4/20	86	60	72	0	0.23	-	-
6/5/20	87	65	75	0.01	0.24	-	-
6/6/20	77	60	71	0	0.24	-	-
6/7/20	68	53	61	0	0.24	-	-
6/8/20	75	48	63	0	0.24	-	-
6/9/20	89	57	73	0	0.24	-	-
6/10/20	90	65	78	0	0.24	-	-
6/11/20	79	65	71	0.02	0.26	-	-
6/12/20	70	51	63	0	0.26	-	-
6/13/20	59	45	52	0	0.26	-	-
6/14/20	66	41	54	0	0.26	-	-
6/15/20	73	44	59	0	0.26	-	-
6/16/20	78	47	64	0	0.26	-	-
6/17/20	84	53	69	0	0.26	-	-
6/18/20	85	58	71	0	0.26	-	-
6/19/20	83	62	73	0	0.26	-	-
6/20/20	87	62	75	0	0.26	-	-
6/21/20	86	64	77	0	0.26	-	-
6/22/20	89	67	77	0.35	0.61	27.9	27.9
6/23/20	86	66	74	0.03	0.64	25.8	53.7
6/24/20	75	61	68	0	0.64	18.2	71.9
6/25/20	77	59	67	0.22	0.86	17.7	89.6
6/26/20	81	62	72	0	0.86	21.6	111.2
6/27/20	78	61	70	0.3	1.16	19.4	130.6
6/28/20	79	67	73	0.28	1.44	22.9	153.5
6/29/20	82	65	73	0	1.44	23.3	176.8
6/30/20	74	64	68	0	1.44	19	195.8
Total Precipitation June ---->				1.44 (in)			196 GDD

Table 8. Weather Summary for Geneva NY Cont.

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Monthly Acc. Precip.	Degree days base 50	Acc. dd units base 50
7/1/20	81	62	72	0	0	21.8	217.8
7/2/20	91	67	80	0	0	28.9	246.7
7/3/20	85	70	78	0	0	27.6	274.3
7/4/20	86	67	76	0.01	0.01	26.6	300.9
7/5/20	89	61	76	0	0.01	25.1	326
7/6/20	90	64	78	0	0.01	27.3	353.3
7/7/20	88	69	78	0	0.01	28.7	382
7/8/20	85	69	76	0.12	0.13	26.8	408.8
7/9/20	94	69	81	0	0.13	31.3	440.1
7/10/20	89	72	79	0.03	0.16	30.7	470.8
7/11/20	85	70	74	1.14	1.3	27.1	497.9
7/12/20	82	68	74	0	1.3	24.8	522.7
7/13/20	75	64	69	0.18	1.48	19.5	542.2
7/14/20	80	63	70	0	1.48	21.4	563.6
7/15/20	85	60	73	0	1.48	22.4	586
7/16/20	79	69	72	0.99	2.47	24.1	610.1
7/17/20	82.5	67.8	75	0.08	2.55	25.1	635.2
7/18/20	86.8	62	74	0	2.55	24.4	659.6
7/19/20	89.4	69	79	0.14	2.69	29.2	688.8
7/20/20	82.8	72.7	78	0	2.69	27.8	716.6
7/21/20	81.2	61.7	71	0	2.69	21.4	738
7/22/20	80.6	63.6	72	0.22	2.91	22.1	760.1
7/23/20	81	66.9	74	0.06	2.97	23.9	784
7/24/20	83	64.4	74	0	2.97	23.7	807.7
7/25/20	85.9	63.5	75	0	2.97	24.7	832.4
7/26/20	85.9	65.1	76	0	2.97	25.5	857.9
7/27/20	88.3	71.6	80	0.02	2.99	29.9	887.8
7/28/20	82.5	68.7	76	0.68	3.67	25.6	913.4
7/29/20	77.4	67	72	0.45	4.12	22.2	935.6
7/30/20	80.5	63.2	72	0	4.12	21.9	957.5
7/31/20	81	60.1	71	0	4.12	20.6	978.1
Total Precipitation July ---->				4.12 (in)		782 GDD	978 GDD

Table 8. Weather Summary for Geneva NY Cont.

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Monthly Acc. Precip.	Degree days base 50	Acc. dd units base 50
8/1/20	84.1	59.7	72	0.04	0.04	21.9	1000
8/2/20	86.7	69	78	0.05	0.09	27.9	1027.9
8/3/20	81.6	67	74	0	0.09	24.3	1052.2
8/4/20	73	66.4	70	0.28	0.37	19.7	1071.9
8/5/20	74.8	61	68	0	0.37	17.9	1089.8
8/6/20	75.8	55.3	66	0	0.37	15.6	1105.4
8/7/20	78.2	57.1	68	0	0.37	17.4	1122.8
8/8/20	83.5	61.6	73	0	0.37	22.6	1145.4
8/9/20	84.8	60.5	73	0	0.37	22.6	1168
8/10/20	88.8	70.5	80	0	0.37	29.6	1197.6
8/11/20	87.8	67.7	78	0	0.37	27.8	1225.4
8/12/20	82.6	61.6	72	0	0.37	22.8	1248.2
8/13/20	85.5	59.7	73	0	0.37	22.6	1270.8
8/14/20	84	61.6	73	0	0.37	22.8	1293.6
8/15/20	83.3	63	73	0	0.37	23.1	1316.7
8/16/20	79.8	66.2	73	0.13	0.5	23.4	1340.1
8/17/20	79.3	62.8	71	0.01	0.51	21.2	1361.3
8/18/20	75	59.9	67	0.02	0.53	17.4	1378.7
8/19/20	71.8	55	63	0	0.53	13.4	1392.1
8/20/20	79.1	51.8	65	0	0.53	15.4	1407.5
8/21/20	82.7	57	70	0	0.53	19.9	1427.4
8/22/20	85.7	62.4	74	0	0.53	24.1	1451.5
8/23/20	84.7	64.2	74	0	0.53	24.4	1475.9
8/24/20	86.8	61.7	74	0	0.53	24.3	1500.2
8/25/20	79	64.7	72	0.3	0.83	22.1	1522.3
8/26/20	70.4	56.6	64	0.05	0.88	13.5	1535.8
8/27/20	82.8	62.6	73	0.83	1.71	22.7	1558.5
8/28/20	72	64	68	0	1.71	18.1	1576.6
8/29/20	79.9	64.4	72	0.04	1.75	21.9	1598.5
8/30/20	71	53.3	62	0	1.75	12.6	1611.1
8/31/20	74.6	50.2	62	0	1.75	12.4	1623.5
Total Precipitation August	---->			1.75 (in)		645 GDD	1624 GDD

Table 8. Weather Summary for Geneva NY Cont.

Day	Max. Temp.	Min. Temp.	Mean Temp.	Precip.	Monthly Acc. Precip.	Degree days base 50	Acc. dd units base 50
9/1/20	75.5	65.5	70	0	0	21.9	1645.4
9/2/20	80.7	68.8	73	0.02	0.02	27.9	1673.3
9/3/20	78.2	62.1	70	0	0.02	24.3	1697.6
9/4/20	72.2	57.7	72	0	0.02	19.7	1717.3
9/5/20	71.6	53.3	63	0.01	0.03	17.9	1735.2
9/6/20	72.4	56	64	0	0.03	15.6	1750.8
9/7/20	77	60.1	69	0.01	0.04	17.4	1768.2
9/8/20	83.8	61.2	69	0	0.04	22.6	1790.8
9/9/20	85.8	57.8	70	0	0.04	22.6	1813.4
9/10/20	77.3	60.6	68	0	0.04	29.6	1843
9/11/20	59.7	45.4	55	0.01	0.05	27.8	1870.8
9/12/20	70	43.2	58	0.01	0.06	22.8	1893.6
9/13/20	71.1	62.6	66	0.24	0.3	22.6	1916.2
9/14/20	64.1	49.1	57	0	0.3	22.8	1939
9/15/20	63.9	40.4	52	0	0.3	23.1	1962.1
9/16/20	76.5	49.1	62	0	0.3	23.4	1985.5
9/17/20	65.2	49.5	58	0	0.3	8.2	1993.7
9/18/20	57.5	44.1	52	0	0.3	2	1995.7
9/19/20	57.1	35	46	0	0.3	0	1995.7
9/20/20	60.8	36.1	48	0	0.3	0	1995.7
9/21/20	65.3	36.4	50	0	0.3	0.8	1996.5
9/22/20	67.7	37.7	53	0	0.3	2.7	1999.2
9/23/20	76.4	59.6	66	0	0.3	16.1	2015.3
9/24/20	78	55.5	64	0.04	0.34	16.8	2032.1
9/25/20	78.9	54	65	0	0.34	16.4	2048.5
9/26/20	81.2	55.7	67	0	0.34	18.4	2066.9
9/27/20	82.7	59.2	69	0	0.34	20.9	2087.8
9/28/20	82	60.9	72	0	0.34	21.4	2109.2
9/29/20	71.5	54.1	59	0.62	0.96	13	2122.2
9/30/20	62.1	50.6	56	0.54	1.5	6.3	2128.5
Total Precipitation September -->				1.5 (in)		505 GDD	2129 GDD