

# Trial Report: Supersweet Corn Variety Evaluation Fall 2014

Conducted by:

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## Methods

Location: Tifton, GA

Planting Date: 12 Aug. 2014, 28 varieties included (1 non-commercial line removed upon request)

Plant Spacing: 30" between rows, 8" within row (Pop. 26136 per acre)

Plot size: 2-row 20 foot plots (40 foot per plot total) with 8 foot alleys between adjacent plots

Fertility: (330 lbs/N acre total, 1/3 preplant using 10-10-10) with side-dress applications of urea and ammonium nitrate approximately 2 and 4 weeks after planting.

Herbicide: Atrazine + Prowl

Pest Control: Fungicide (Headline AMP or Quadris every two weeks starting at v3 stage. Insecticides: coragen drench at planting then daily insecticides starting at first sign of silking (lannate + bifenthrin daily with coragen weekly) through the last harvest. Approximately 26 insecticide applications were made.

Plot stand rating conducted: 16 Oct 2014

Vigor rating conducted: In fall all varieties had desirable vigor with no significant differences observed.

Tiller rating: few tillers were observed, unlike during the spring trial only a few tillers were recorded and there was not a significant difference in varieties.

Harvest dates: 16-24 Oct. Plots harvested 1 time. All marketable ears harvested and counted. In some cases marketable second ears were picked. *Varieties were ready 65-73 days after seeding.*

Quality evaluation conducted on 10 ears from each plot.

Average length and width based on aligning 5 shucked ears end to end and side to side from each plot. Tip coverage determined by measuring 5 ears per plot and averaging. Flag ratings were visual: none, small, med, and large. Subjective observations made during harvest (ease of harvest, shank size, etcetera). Kernel rows were counted on two ears per plot (8 total per variety).

Lodging: A strong storm was observed on 14-Oct, which caused several varieties to lodge severely.

Lodging ratings were conducted on 16-Oct. Varieties that had lodged were still harvested though it is doubtful a commercial grower would have been able to harvest.

Southern Corn Leaf Blight: During harvest symptoms of Southern Corn Leaf Blight were apparent, plants were no longer being sprayed with fungicide at this time and a rating for SCLB was taken on 3 Nov 2014, approximately 10 days after last harvest. The symptoms of the disease were variable and there were no significant differences between varieties.



*Test plot on day  
first harvest date  
(16 Oct.)*

Table 1. Entries included in the Fall 2014 trial.					
Abbott and Cobb	Crookham	Harris Moran	Illinois Foundation Seed	Seminis	Syngenta
CRSS3880 MR	Bright White	Ranier	Awesome XR	Obsession	BSS 0977
3188 MR	CSABF12-551		Stellar XR	Passion	Battalion
2760 MR	CAPBF10-411		2974 MXR	EX08737143	Protector
1760 MR	CSAYF9-345		2977 XR	QHW6RH1229	
ss8902 MR	AP 426		2979 XR	SC1336	
			XTH1876	SV1580SC	
				Obsession II	

## Results

Tip fill was excellent in all varieties. No insects were observed in any harvested ears and no disease symptoms (rust etc.) were present on the husks. Yields were better in fall than in spring and many varieties that performed poorly in the spring performed well in fall. Very little suckering (tillering) was noted in the field

Four varieties, noted in table 2, experienced lodging in at least two of four plots due to a heavy storm on 14 Oct. Although average lodging rates in some other varieties (not in the top four) were high, this was generally due to a single plot heaving heavy rates of lodging. The effects were dramatic as they were isolated to a single plot, with plants in adjacent plots appearing fine after the storm.

Yields were high, with Obsession having the greatest yield, though 16 varieties were not statistically different from Obsession in terms of yield. Average ear length was noticeably greater in 3188 MR and XTH1876, with both having an average ear length of greater than 8 inches. Several varieties had an average width greater than 2 inches. Tip coverage was good in all varieties, with 2760 MR and Protector having greater than 2.5 inches of tip coverage. Kernel rows were varied, though not noticeably different from in spring. Flags appeared to be larger in the fall-grown corn however, with some varieties having much larger flags in fall than in spring. Please compare photos of fall-grown corn to those grown in spring (previous report).

<b>Table 2. Average lodging values (4 replications) for sweet corn trial in Fall 2014, Tifton, GA.</b>			
Variety	Lodging (% of plants)		Range of lodging (%) between plots
Bright White	75.0	a	25-100
Rainier	65.0	ab	0-100
Stellar XR	65.0	ab	20-100
CAPBF10-411	40.0	ab	20-75
2974MXR	25.0	cd	0-100
QHW6RH1229	20.0	cd	0-80
2577 XR	12.5	cd	0-50
Passion	12.5	cd	0-50
Obsession	10.0	cd	0-40
Awesome XR	6.7	cd	0-50
XTH1876	6.3	cd	0-25
2979 XR	6.3	cd	0-25
CSABF12-551	6.3	cd	0-25
EX08737143	5.0	cd	0-20
2760 MR	5.0	cd	0-20
BSS 0977	1.7	d	0-5
SC1336	0.0	d	0
SV 1580SC	0.0	d	0
8902 MR	0.0	d	0
CSAYF9-345	0.0	d	0
Protector	0.0	d	0
3880 MR	0.0	d	0
AP 426	0.0	d	0
Battalion	0.0	d	0
1760 MR	0.0	d	0
Obsession II	0.0	d	0
3188 MR	0.0	d	0

*Lodging was variable among plots but the four varieties with highest lodging incidence were noticeably affected more than others.*

<b>Table 3. Total marketable yield for fall 2014.</b>		
Variety	Yield *	
	Boxes (4 dz) per acre	
Obsession	640	a
QHW6RH1229	630	ab
SC1336	610	abc
EX08737143	600	a-d
CAPBF10-411	600	a-d
2577 XR	600	a-d
2974MXR	590	a-d
BSS 0977	590	a-e
SV 1580SC	590	a-d
8902 MR	570	a-f
XTH1876	560	a-g
CSAYF9-345	550	a-g
Passion	550	a-g
2979 XR	540	a-g
Protector	540	a-g
Bright White	530	a-g
CSABF12-551	530	a-g
AP 426	530	a-g
3880 MR	510	b-g
Awesome XR	500	c-g
Rainier	500	c-g
Battalion	490	d-h
1760 MR	480	d-h
2760 MR	470	e-h
Obsession II	460	fgh
Stellar XR	450	fgh
3188 MR	450	gh

**\*Yield is yield harvested per plot based on row feet planted (40 feet per plot) and a per acre yield estimated for 17,240 row feet (30" centers with 8" in-row spacing)**

**Table 4. Ear quality assessment for fall 2014.**

Variety	Avg. Ear Length		Avg. Ear Width		Tip Coverage		Kernel Rows	Flags
	Inches						Range	<i>(subjective rating)</i>
<b>3188 MR</b>	8.13	a	1.86	fgh	1.25	efg	14-18	none - small
<b>XTH1876</b>	8.08	ab	1.99	b-e	1.72	a-g	16-18	med-lg
<b>2979 XR</b>	7.73	cd	1.88	fgh	1.38	d-g	14-18	med-lg
<b>Obsession II</b>	7.58	cde	2.11	a	1.53	d-g	16-18	sm-med
<b>2760 MR</b>	7.55	cde	1.86	fgh	2.63	abc	14-18	sm-med
<b>QHW6RH1229</b>	7.51	c-f	1.93	d-g	1.72	a-g	14-18	sm-med
<b>3880 MR</b>	7.47	c-g	1.85	gh	1.38	d-g	14-18	none-sm
<b>2577 XR</b>	7.43	d-g	1.91	d-h	1.09	efg	12-16	lg
<b>SV 1580SC</b>	7.38	e-h	1.95	c-g	1.19	efg	14-18	sm-med
<b>AP 426</b>	7.36	e-i	1.96	c-f	1.56	c-g	14-18	med
<b>Obsession</b>	7.33	e-i	1.99	b-e	2.13	a-e	16-20	med
<b>2974MXR</b>	7.33	e-i	2.08	ab	2.44	a-d	16-20	lg
<b>SC1336</b>	7.30	e-i	2.05	abc	1.88	a-f	18-20	sm-med
<b>Passion</b>	7.29	e-i	1.94	d-g	1.66	a-g	14-16	sm-med
<b>8902 MR</b>	7.26	e-i	1.91	d-h	1.94	a-f	12-18	med-lg
<b>CSABF12-551</b>	7.25	e-i	1.86	fgh	1.59	b-g	12-16	med
<b>EX08737143</b>	7.22	e-i	1.91	d-h	1.78	a-g	14-18	med
<b>1760 MR</b>	7.21	e-i	1.94	d-g	2.65	ab	14-18	med
<b>Stellar XR</b>	7.18	f-j	1.99	b-e	0.75	g	12-18	med-lg
<b>Battalion</b>	7.13	g-j	1.90	e-g	1.92	a-f	14-18	med-lg
<b>Bright White</b>	7.05	h-k	1.98	b-e	1.38	d-g	14-18	sm
<b>CSAYF9-345</b>	7.00	ijk	1.96	c-f	1.75	a-g	14-18	sm-med
<b>Awesome XR</b>	6.85	kj	2.00	b-e	0.88	fg	12-16	med-lg
<b>Rainier</b>	6.85	kj	2.05	abc	1.06	efg	14-18	med
<b>BSS 0977</b>	6.75	kl	1.82	h	2.04	a-e	14-16	sm-med
<b>Protector</b>	6.74	kl	1.94	d-g	2.68	a	14-16	med
<b>CAPBF10-411</b>	6.50	l	2.01	bcd	1.19	efg	12-16	sm

Figure 1: Yield

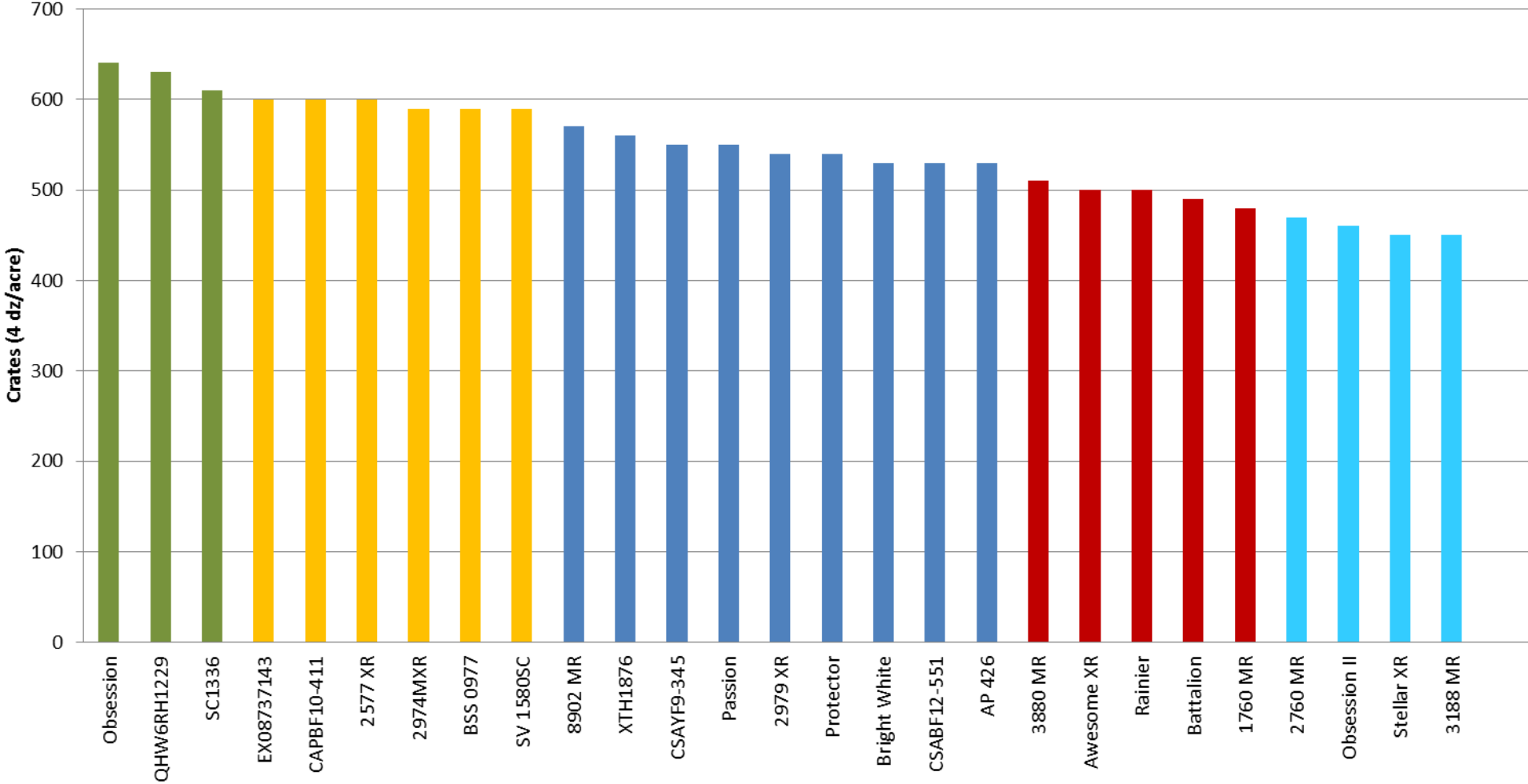
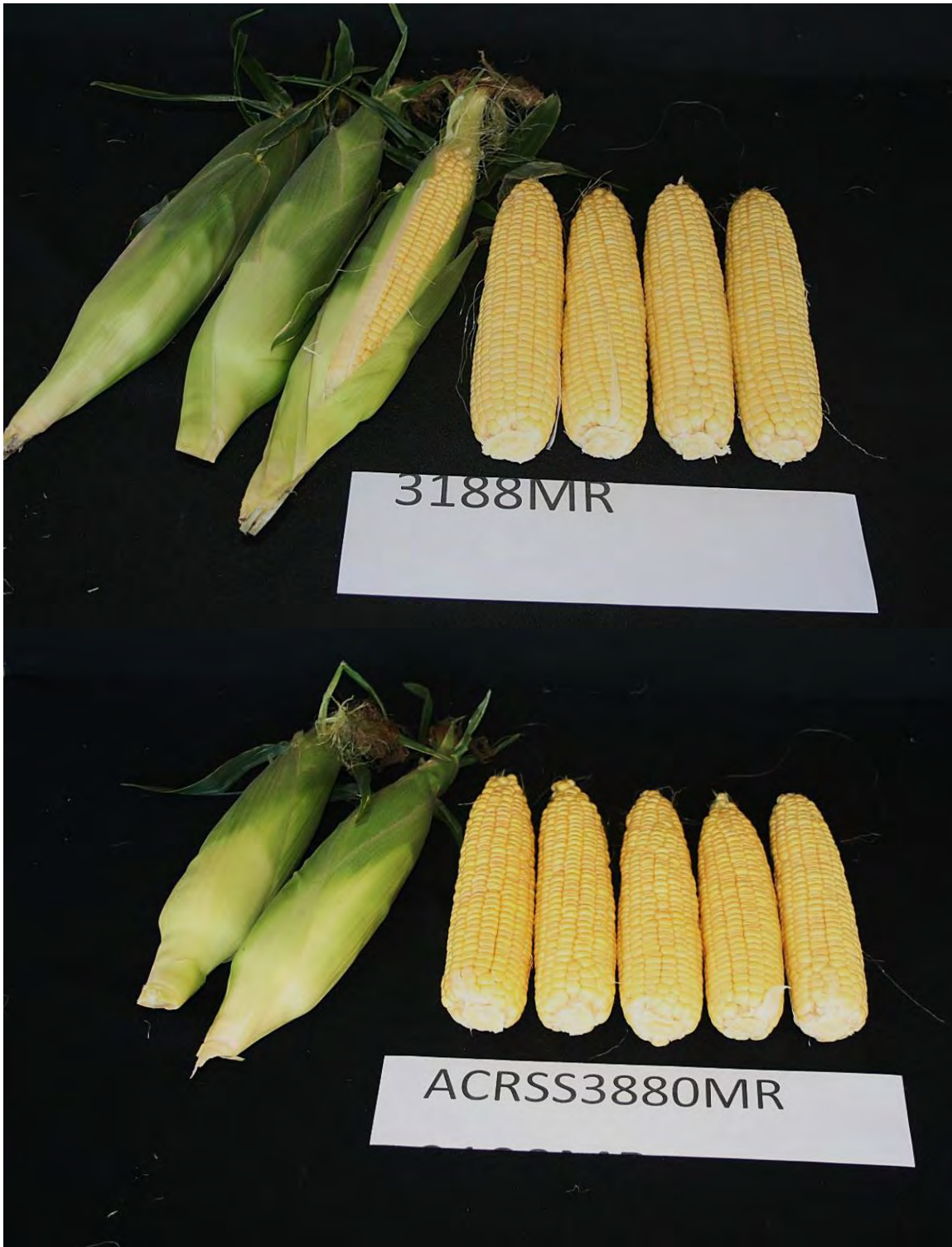


Figure 2. Variety documentation Fall 2014. In order- yellow, bicolor, and white.





ssayf9-345



xth1876





Protector



Passion





2760mr



csabf12-551



capbf10-411



ap426



Rainier



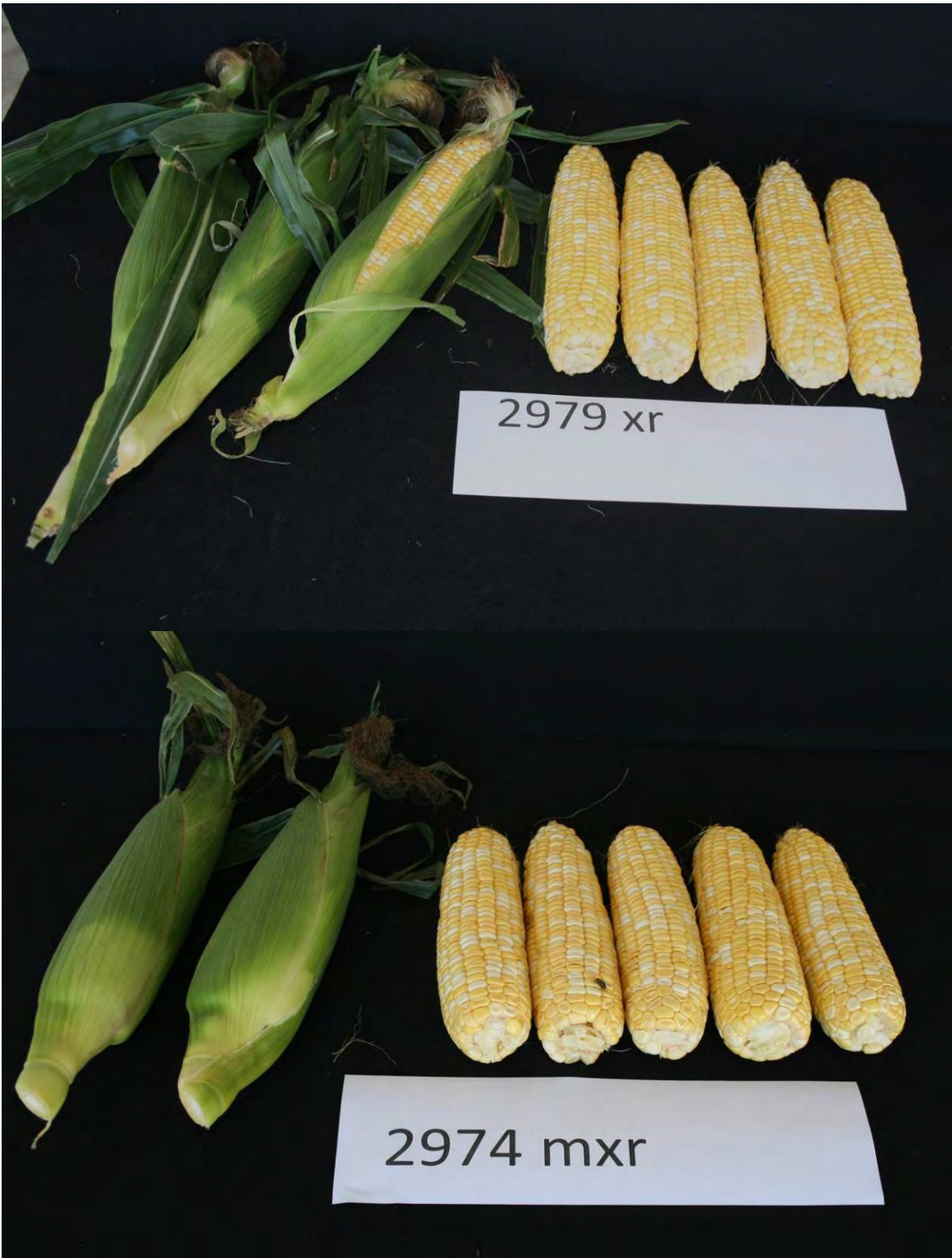
Stellar XR

*Rainier Photo taken from Spring 2014 trial*



Awesome xr

2577 xr



2979 xr

2974 mxr



bss 0977

Battalion





Obsession



Obsession II



7143



Bright white



1760MR

