

## **Super Sweet Corn Evaluations in Central Kentucky - 2003**

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### **Introduction**

Locally produced sweet corn is a high demand item at Kentucky retail markets. This trial was designed to evaluate newer super sweet corn varieties under central Kentucky conditions.

### **Materials and Methods**

Forty-eight super sweet corn varieties were planted by hand on 14 May 2003. Plots consisted of a 20 ft long row of each cultivar, replicated four times. Rows were spaced 3.5 ft apart and 100 seeds were planted in each 20 ft row. Plants were thinned to a distance of 8 inches apart on June 10.

Prior to planting 100 lb of actual N per acre was applied as ammonium nitrate and tilled in. Plants were side dressed with 50 lb of actual N per acre as ammonium nitrate.

Bicep at the rate of 1.8 qt per acre was applied on 14 May for weed control. Pounce, Sevin, Asana and Warrior were used for insect control.

### **Results and Discussion**

Variety evaluation results can be found in Tables 1 through 3.

Attribute WSS 0966, Morning Star, Max and Bandit were the best performing yellow varieties.

Attribute WSS 0987, Tahoe, Summer Sweet 8101R, Extra Tender 275A, Gourmet Brand 378A and 382A Xtra Tender Brand were the best performing white varieties. Variety 372A Xtra Tender Brand was the best early maturing white corn.

Attribute BSS 0977, Polaris, Candy Corner and Shooting Star were the best bicolor varieties. Gourmet Brand 272A was the best early maturing bicolor variety.

The wet season reduced problems with husk coverage and tip fill. Consequently, most varieties performed very well.

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**Table 1. Plant characteristics and yield of super sweet corn cultivars, Lexington, KY- 2003**

<b>Cultivar</b>	<b>Seed Source<sup>1</sup></b>	<b>Days to maturity</b>	<b>Plant stand<sup>2</sup> (%)</b>	<b>Height to first harvested ear (in.)</b>	<b>Ease of ear harvest<sup>3</sup> (1-5)</b>	<b>Yield (dozen ears per acre)</b>
Attribute WSS 0987	SY	81	80	19	2.3	2645
Tahoe	SW/SY	81	94	23	3	2593
Attribute BSS 0977	SY	78	96	24	3.4	2256
Attribute WSS 0966	SY	79	91	24	2.8	2217
Morning Star	HR/HM	83	76	27	3.3	2139
Polaris	HM	81	90	22	2.4	2061
Rustler	HM	84	92	24	2.9	2048
Max (HMX 8392S)	HM	85	92	23	2.8	2022
Gourmet Brand 276A	ST	76	88	17	3.5	1997
Candy Corner	HM	76	92	23	3.6	1984
Shooting Star	HM	83	95	24	3.4	1945
Bandit	HM	80	86	26	3.5	1893
Gourmet Brand 272A	ST	72	95	10	3.5	1884
Summer Sweet 7631	AC	84	84	24	3.8	1841
Summer Sweet 8101R	AC	81	86	23	3.9	1815
Zenith	HM	81	91	28	2.4	1802
Extra Tender 275A	SI	75	95	17	3.9	1789
Gourmet Brand 378A	ST	78	94	17	3.5	1789
382A Xtra Tender Brand	SW	82	78	23	2.8	1776
WSS 9870	HM	78	95	18	3.4	1776
Summer Sweet 7650	AC		95	26	3.9	1737
Summer Sweet 8102R	AC		88	23	3.8	1724
Winstar	SY	82	94	26	3.4	1724
Boreal	SY	78	93	19	2.9	1698
Snowstorm	ST	82	94	23	3.1	1647
White Saturn	SW	75	91	19	3.2	1647
278A Extra Tender Brand	SI/SW	78	82	23	3.9	1634
372A Xtra Tender Brand	HR	72	92	12	2.7	1634
Camas	SY	84	96	26	3.1	1621
Tethys	SY/RU	77	97	19	3.6	1595
Mirai	SI		75	23	3.2	1530
Gourmet Brand 175A	ST	75	94	22	3	1517
Obsession	RU/ST	79	88	23	3.8	1517
Abco Brand Var. 946BC	AC		93	18	4.2	1491
First Class	SW	69	91	17	3.5	1452
Ice Queen	HR/HM	77	94	16	3.4	1452
Gourmet Brand 182A	ST	82	98	20	3.1	1439
6800R Hybrid Sweet	AC		97	16	4	1413
ACX 738W Hybrid	AC		81	13	4	1348
Gourmet Brand 277A	ST/RU/HR	76	87	19	1.8	1335
Millenium	SW	82	67	20	4	1335
First Snow	SW	72	88	16	3.5	1322
Eagle	RU	76	79	21	3.9	1296
Abco Brand Var. 945Y	AC		95	18	3.9	1284
282A Xtra Tender Brand	RU	82	84	21	4	1245
178A Xtra Tender Brand	RU	78	88	19	3.6	1206
GSS 9525	SY	77	87	15	3.3	1115
Gourmet Brand 177A	ST	77	90	17	3.3	1037
Waller-Duncan LSD (P = 0.05)						419

<sup>1</sup>See Appendix for seed company addresses<sup>2</sup>Plant stand is percentage emergence based on planting 100 seeds<sup>3</sup>Ease of harvest 1= hard; 5 = easy

**Table 2. Ear characteristics of super sweet corn, Lexington, KY- 2003**

<b>Cultivar</b>	<b>Husk coverage<sup>1</sup> (1-10)</b>	<b>Ear length (in)</b>	<b>Ear width (in)</b>	<b>Tip fill<sup>2</sup> (1-10)</b>	<b>Kernel color<sup>3</sup></b>	<b>Row Straightness<sup>4</sup> (1-10)</b>
Attribute WSS 0987	8.8	7.3	1.8	9.3	W	7.5
Tahoe	8.8	7.9	1.9	8.5	W	7.5
Attribute BSS 0977	9.8	7.3	1.8	9.3	BC	6.8
Attribute WSS 0966	9.3	7.3	1.8	10.0	Y	8.1
Morning Star	10.0	7.6	1.9	9.8	Y	6.5
Polaris	8.5	7.8	1.8	9.8	BC	7.5
Rustler	6.5	7.8	1.9	7.7	Y	8.1
Max (HMX 8392S)	10.0	7.5	1.8	8.9	Y	7.1
Gourmet Brand 276A	9.8	7.7	1.8	10.0	BC	8.8
Candy Corner	8.5	7.4	1.7	10.0	BC	8.3
Shooting Star	9.3	8.3	1.9	9.3	BC	8.8
Bandit	8.0	7.3	2.0	10.0	Y	8.0
Gourmet Brand 272A	7.8	7.6	1.8	8.3	BC	7.5
Summer Sweet 7631	9.5	8.0	1.8	6.5	W	5.8
Summer Sweet 8101R	9.0	8.0	1.8	10.0	W	7.3
Zenith	9.7	7.2	1.8	10.0	Y	7.8
Extra Tender 275A	10.0	7.7	1.8	9.3	W	8.3
Gourmet Brand 378A	9.3	7.7	1.9	8.7	W	7.6
382A Xtra Tender Brand	9.0	7.4	1.9	9.7	W	7.8
WSS 9870	8.5	7.6	1.8	9.8	W	7.0
Summer Sweet 7650	8.3	8.2	1.8	9.0	Y	6.3
Summer Sweet 8102R	8.0	8.4	1.8	8.9	BC	7.8
Winstar	10.0	7.5	1.9	9.5	Y	7.0
Boreal	6.5	7.7	1.8	9.5	W	6.8
Snowstorm	3.5	7.5	1.9	8.8	W	6.0
White Saturn	9.5	7.5	1.8	10.0	W	9.0
278A Extra Tender Brand	8.6	7.8	1.8	9.7	BC	8.5
372A Xtra Tender Brand	7.8	7.7	1.8	9.5	W	8.3
Camas	9.5	7.9	1.8	8.0	BC	6.5
Tethys	5.0	7.9	1.8	8.5	BC	7.8
Mirai	8.7	7.6	1.9	8.3	Y	8.7
Gourmet Brand 175A	5.8	8.2	1.7	10.0	Y	7.0
Obsession	8.0	8.4	1.9	10.0	BC	7.9
Abco Brand Var. 946BC	6.3	6.1	1.8	8.0	BC	8.3
First Class	9.0	7.9	1.7	10.0	W	8.0
Ice Queen	8.5	8.0	1.8	8.3	W	7.3
Gourmet Brand 182A	8.4	7.9	1.9	9.5	Y	8.1
6800R Hybrid Sweet Corn	9.7	7.4	1.7	9.0	Y	8.0
ACX 738W Hybrid	9.3	7.7	1.9	9.3	W	8.3
Gourmet Brand 277A	8.8	7.4	1.7	9.8	BC	7.0
Millenium	9.5	7.9	1.9	6.0	W	8.0
First Snow	7.8	7.7	1.7	10.0	W	6.8
Eagle	5.0	8.3	1.9	3.0	BC	8.5
Abco Brand Var. 945Y	7.8	8.1	1.8	7.3	Y	9.0
282A Xtra Tender Brand	10.0	7.4	1.9	10.0	BC	7.3
178A Xtra Tender Brand	9.0	7.5	1.8	8.8	Y	8.0
GSS 9525	6.0	9.4	2.0	1.8	Y	5.3
Gourmet Brand 177A	5.5	7.5	1.8	8.0	Y	7.5

<sup>1</sup>Number of ears out of 10 that had tight husk coverage over the ear tip<sup>2</sup>Number of ears out of 10 that had good tip fill<sup>3</sup>Y = yellow; W = white; BC= bicolor<sup>4</sup>Number of ears out of 10 that had straight rows of kernels

**Table 3. Ear quality characteristics of super sweet corn varieties, Lexington, KY, 2003**

Cultivar	Cooked Corn			Comments
	Pericarp Tenderness <sup>1</sup> (1-4)	Kernel tenderness <sup>2</sup> (1-4)	Sweetness <sup>3</sup> (1-4)	
Attribute WSS 0987	2.5	2.0	3.0	Attractive husk, short tassels in ears, deep kernels.
Tahoe	2.5	2.0	3.5	Attractive husk and ear, small kernel, tassels in ear tip
Attribute BSS 0977	1.5	2.0	2.5	Attractive husk, some ears with tassels in the ends.
Attribute WSS 0966	2.0	2.0	3.3	Dark green husk, attractive ear.
Morning Star	3.0	2.5	3.0	Attractive dark green husk, few tassels in the ends.
Polaris	2.3	2.1	3.3	Attractive ear and husk.
Rustler	3.0	2.0	2.0	
Max (HMX 8392S)	3.5	2.0	3.0	Small kernels nice flavor.
Gourmet Brand 276A	3.0	2.0	2.8	A lot of secondary ears.
Candy Corner	1.0	1.5	2.5	
Shooting Star	2.0	2.0	2.5	Attractive ear and husk, short flags.
Bandit	1.5	2.5	3.0	Large ears, dark green attractive husk.
Gourmet Brand 272A	3.1	2.0	3.3	Attractive ear, difficult to husk.
Summer Sweet 7631	3.0	2.0	3.0	Attractive husk.
Summer Sweet 8101R	3.0	2.0	2.5	Attractive husk, some tassels in ends.
Zenith	2.8	2.5	3.3	
Extra Tender 275A	2.5	2.3	2.8	Attractive husk and ear.
Gourmet Brand 378A	2.5	2.5	3.2	Attractive husk and ear, deep kernels.
382A Xtra Tender Brand	4.0	4.0	3.2	
WSS 9870	2.0	2.0	3.4	Attractive husk, long flags, short tassels in ear ends.
Summer Sweet 7650	2.0	2.0	3.0	Attractive ear, small kernels.
Summer Sweet 8102R	3.0	3.0	3.2	
Winstar	2.0	2.0	2.9	Attractive husk and ear, good corn flavor.
Boreal	3.0	3.0	3.0	Some have short tassels in ears.
Snowstorm	2.0	2.0	3.5	All ears slightly bent, unattractive husk.
White Saturn	2.5	2.5	3.0	Attractive husk, tight shucks, short flags, some tassels
278A Extra Tender Brand	2.5	2.5	3.2	Nice shuck, some tassels in the ends.
372A Xtra Tender Brand	2.5	2.2	3.0	Many lost to raccoons.
Camas	3.0	2.5	3.0	Ears are crooked.
Tethys	3.3	2.0	3.0	
Mirai	2.0	3.0	3.0	
Gourmet Brand 175A	3.8	2.0	3.3	Attractive, has long flags, some with tassels in ends.
Obsession	3.0	2.5	3.5	Attractive husk and ears.
Abco Brand Var. 946BC	3.0	2.5	2.0	Attractive husk.
First Class	2.8	2.5	3.0	Nice green husk, easy to husk, heavy raccoon damage
Ice Queen	2.0	1.5	2.9	Easy to shuck.
Gourmet Brand 182A	3.0	2.0	3.0	Attractive, dark green husks.
6800R Hybrid Sweet Corn	2.8	2.5	3.5	Small ear, big shucks, attractive ear.
ACX 738W Hybrid	2.5	2.3	3.1	Attractive husk and ear.
Gourmet Brand 277A	3.0	2.8	3.4	Attractive ear and husk, tight shuck.
Millenium	2.0	2.5	3.6	Husk not attractive.
First Snow	3.0	3.0	3.3	Attractive ear.
Eagle	2.8	2.3	2.8	Nice corn flavor.
Abco Brand Var. 945Y	2.5	2.0	3.5	Attractive husk.
282A Xtra Tender Brand	2.0	2.5	3.0	
178A Xtra Tender Brand	3.3	2.3	2.9	Some ears flattened, very attractive when cooked.
GSS 9525	3.0	4.0	3.5	Very large ear.
Gourmet Brand 177A	3.8	2.3	3.0	Attractive, small kernels, nice flavor.

<sup>1</sup>1= tough; 4 = tender

<sup>2</sup>1 = crisp; 4 = creamy and tender

<sup>3</sup>1 = starchy; 4 = very sweet; ratings are based on one microwaved ear