

Super Sweet Corn Evaluations in Central Kentucky - 2005

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Introduction

Locally produced sweet corn is a high demand item at Kentucky retail markets. This trial was designed to evaluate synergistic sweet corn varieties that do not require isolation from se varieties.

Materials and Methods

Fifteen synergistic hybrid and one sugar enhanced sweet corn varieties were planted by hand on 11 May 2005. 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 II Magnum at the rate of 1.6 qt per acre was applied on 10 May 2005 for weed control. Pounce and Warrior were used for insect control.

Results and Discussion

Variety evaluation results can be found in Tables 1 through 3. Sugar Ace, a synergistic variety that has been available for a number of years was the best performing yellow variety. This has been a top variety in previous trials and was placed in this trial for comparative purposes. The poor plant stand for this variety in Table 1 is attributed to the use of two-year old seed. All other seed in the trial was produced in 2004.

Misquamicut and Sweet Ice were the best white varieties. Argent, the white check se variety did very well. Attribute BC0805 and Providence were the best bicolor varieties. The dry season accentuated husk coverage and tip fill problems and led to some husk sunburning.

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Table 1. Plant characteristics and yield of synergistic sweet corn cultivars, Lexington, KY- 2005

Cultivar	Seed source ¹	Days to maturity	Plant stand ² (%)	Seedling vigor ³ (1-5)	Height to first harvested ear (in.)	Ease of ear harvest ⁴ (1-5)	Yield (dozen ears per acre)
Argent ⁵	SI	83	85	4.4	16.2	2.8	2100
Attribute BC0805	SY/RG	82	85	3.3	16.2	2.6	1997
Sweet Satin	HM	77	86	4.5	18.4	4.0	1984
Sugar Ace	HR	85	28	1.4	16.3	3.0	1906
Avalon	ST/SW	82	92	3.6	9.4	3.7	1737
Honey Select	SW	79	87	3.0	14.1	2.9	1737
Cameo	SW/HR	84	81	3.6	20.5	3.6	1698
Misquamicut	SI	78	88	3.9	17.9	4.2	1672
Sweet Ice	HM	74	90	4.0	21.6	3.8	1647
Providence	ST/SW	80	87	2.3	18.5	2.9	1634
Nantasket	ST	73	81	2.8	14.3	4.3	1595
Polka	ST	59-66	80	3.1	7.8	3.0	1582
Frisky	ST	58-69	90	3.4	5.7	3.6	1530
Honey Treat	SY/RG	76	90	4.6	11.4	2.6	1465
BC1136	SY/RG	75	78	3.1	13.9	2.8	1387
Cinderella	ST	80	90	2.6	8.0	3.0	1361
Waller-Duncan LSD (P=0.5)							862

¹See Appendix for seed company addresses

²Plant stand is percentage emergence based on planting 100 seeds

³1 = poor; 5 = excellent

⁴Ease of harvest 1= hard; 5 = easy

⁵Sugar enhanced check variety

Table 2. Ear characteristics of synergistic sweet corn, Lexington, KY- 2005

Cultivar	Husk coverage ¹ (1-10)	Ear length (in)	Ear width (in)	Tip fill ² (1-10)	Kernel color ³	Row Straightness ⁴ (1-10)
Argent ⁵	9.3	8.4	1.9	8.3	W	8.8
Attribute BC0805	9.8	9.0	1.9	8.5	BC	8.6
Sweet Satin	7.3	8.4	1.9	6.3	W	7.3
Sugar Ace	9.5	7.8	1.9	9.8	Y	8.5
Avalon	7.3	8.7	1.9	9.5	W	8.6
Honey Select	6.3	8.6	1.9	1.0	Y	7.8
Cameo	7.8	8.4	1.9	4.0	BC	7.5
Misquamicut	8.8	8.1	2.0	8.8	W	6.9
Sweet Ice	9.8	7.5	1.8	8.0	W	6.5
Providence	8.0	9.0	1.8	8.0	BC	8.0
Nantasket	8.5	7.5	2.0	5.0	BC	6.5
Polka	9.5	7.3	1.7	4.0	BC	5.0
Frisky	6.0	7.2	1.6	8.3	BC	7.5
Honey Treat	8.0	8.8	1.8	3.5	Y	9.3
BC1136	6.8	8.6	1.8	6.3	BC	7.6
Cinderella	8.8	7.8	1.8	6.3	W	7.5

¹Number of ears out of 10 that had tight husk coverage over the ear tip

²Number of ears out of 10 that had good tip fill

³Y = yellow; W = white; BC= bicolor

⁴Number of ears out of 10 that had straight rows of kernels

⁵Sugar enhanced check variety

Table 3. Ear quality characteristics of synergistic sweet corn varieties, Lexington, KY, 2005

Cultivar	Cooked Corn			Comments
	Pericarp Tenderness ¹ (1-4)	Kernel tenderness ² (1-4)	Sweetness ³ (1-4)	
Argent ⁴	4.0	4.0	3.0	Attractive ear and husk. Husks with sunburned ends.
Attribute BC0805	- ⁵	-	3.0	Attractive husk and ear, easy to shuck.
Sweet Satin	2.0	2.0	2.0	Attractive ear and husk, large flags.
Sugar Ace	3.0	3.5	3.4	Attractive husk and ear, some with small tassels, hard to husk, long flags.
Avalon	1.5	3.0	2.0	Attractive ear, some with ear tassels. Husks easily, some with sunburn.
Honey Select	-	-	-	Attractive husk. Easy to shuck, but poor tip fill.
Cameo	1.5	2.5	3.3	Attractive ear and husk. Microwaved corn tended to be gummy.
Misquamicut	4.0	4.0	1.0	Attractive ear and husk, excellent tip fill, husks easily Blunt ear, some sunburning of husk.
Sweet Ice	2.3	3.0	3.0	Attractive ear and husk, a few with ear tassels.
Providence	-	-	3.0	Attractive ear and husk, large ears.
Nantasket	-	-	-	Attractive husk and ear, small ears, some butt end blanking.
Polka	2.8	3.5	3.3	Small ears, not attractive, excessively sunburned shuck.
Frisky	3.0	4.0	3.3	Ears very low to ground.
Honey Treat	4.0	4.0	3.3	Attractive ear and husk, very tender, husk snaps off ear easily, some butt end blanking.
BC1136	2.0	2.0	2.0	
Cinderella	4.0	4.0	3.0	Attractive ear and husk, shucks very easily, some ears with tassels, raccoon problem.

¹1= tough; 4 = tender

²1 = crisp; 4 = creamy and tender

³1 = starchy; 4 = very sweet; ratings are based on two microwaved ears

⁴Sugar enhanced check variety

⁵- = Mislplaced data