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GREEN SPRINGS SWEET CORN

VARIETY TRIALS, 1977

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DEPARTMENT OF HORTICULTURE

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GREEN SPRINGS SWEET CORN CULTIVAR TRIALS, 1977

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Fifty sweet corn cultivars and breeding lines were evaluated at Green Springs in 1977. Twenty-eight were tested in replicated plots and the remaining twenty-two were observed in single plots. Entries varied widely in days to maturity, yield, quality and overall appearance of ears.

The sandy loam soil was amended with 600 lb. per acre of 15-15-15 pre-plant incorporated. An additional 325 lb. per acre of 5-30-15 was banded beside rows at planting on May 10. Kernels were planted by hand to an exact stand in pre-marked rows; individual hills were spaced 9 inches apart in 30-inch rows. Plots were single rows 31 feet long. Guard rows containing varieties of different maturity classifications were planted on either side of replicated plots to insure adequate pollination. Plants were thinned to 1 per hill on May 25. The planting was sidedressed with 45 lb. per acre of nitrogen on June 13 when plants were approximately 12 inches tall.

Conventional cultural and pest control methods were used. Weeds were controlled by pre-plant incorporation of Lasso @ 2.75 qt. per acre and cultivation. Dyfonate was also pre-plant incorporated @ 2-5 qt. per acre for soil-borne insects. Additional foliar insecticide and fungicide sprays were applied as needed during the season. Pest damage was minimal. The planting was not irrigated.

Plots were harvested once at optimum maturity and stripped of all remaining ears a few days later to determine total yields. Ears were counted, weighed and examined for tip cover and husk tightness. Ten full-sized ears were then selected at random, husked, measured for length and diameter and subjectively rated for maturity and overall appearance.

SEED SOURCES

1. Agway, Inc., Buffalo, N.Y. 14240
2. Asgrow Seed Co., Kalamazoo, MI. 49001
3. Ferry-Morse Seed Co., Mountain View, CA 94042
4. FMC Corp. (Niagara), Modesto, CA 95618
5. Joseph Harris Co., Rochester, N.Y. 14624
6. Letherman's, Inc., Canton, Ohio 44707
7. Northrup, King & Co., Minneapolis, MN. 55413
8. Robson Seed Farms Corp., Hall, N.Y. 14463
9. Rogers Brothers Co., Idaho Falls, ID 83401
10. Schlessman Seed Co., Milan, Ohio 44846
11. Seedway, Inc., Hall, N.Y. 14463
12. Stokes Seeds, Inc., Buffalo, N.Y. 14240
13. Otis S. Twilley Seed Co., Salisbury, MD 21801

RESULTS

Yields were slightly higher in 1977 than in previous years averaging 1839 dozen marketable ears per acre across all varieties (Tables 1,3). External appearance of ears was also excellent as indicated by an average 92 percent marketable across all

entries.

Seneca Pathfinder was the only replicated entry maturing in less than 70 days (62 days) in 1977. This entry performed relatively poorly, however, yielding less than half of the overall average. Ear color was generally pale and rows of kernels were uneven. Average size of ears was relatively small.

Five entries were harvested 72 days after planting. Beacon yielded highest by weight in this group but Commanche produced more ears. Ears of Beacon were relatively large averaging 0.76 lbs. compared to only 0.61 lbs. for Commanche. Commanche ears tended to be longer and narrower than those of Beacon, however. Both varieties were attractive and showed good tip fill.

Cherokee appeared to be promising among the 75-day entries with 2238 dozen ears per acre. WH 115 also yielded well and may have potential as a midseason white in Ohio.

Sugar Loaf has yielded well above average during the last 2 years. Color is generally excellent but tip fill and kernel arrangement may be questionable in some situations. W 9625 yielded significantly higher than most other varieties in the planting and, based on 1977 performance, may have considerable potential in Ohio. Further testing is necessary before it can be recommended to growers, however.

Several entries in the unreplicated plots appeared to be worthy of further testing. Among these are Seneca RXP217, Stylepak, White Delight and Midway.

TABLE 1.--Average Yield, Ear Size and Other Characteristics of Replicated Sweet Corn Entries. Green Springs, 1977.

Entry ¹	Source	Days to Harvest	Mkt Yield			Tip ² Cover	Husk ² Tightness	Avg. Ear Size			Uni- ³ formity	Avg. ⁴ maturity	Comments
			Doz/ A	Cwt/ A	%			Wt. (lb.)	Lgth. In.	Dia. In.			
Seneca Pathfinder	8	62	927	59	83	2.0	2.0	.54	7.3	1.5	2.8	1.8	Pale.Uneven rows
Beacon	9	72	1522	137	81	3.0	2.0	.76	7.0	1.7	2.8	2.0	Looks good. Good tip.
Commanche	2	72	1824	133	93	3.0	3.0	.61	7.7	1.5	2.9	2.0	Good tip.
Aztec	2	72	1441	121	92	3.0	1.8	.70	7.5	1.8	2.9	2.0	Bright.Good tip.
Seneca Star	8	72	1250	120	88	3.0	1.0	.80	7.7	1.8	2.9	2.0	Yellow.Looks good.
Harmony	5	72	1119	95	89	3.0	2.0	.72	7.4	1.8	2.8	2.0	Pale. Poor tip dev.
Cherokee	2	75	2238	173	91	3.0	1.0	.65	7.8	1.6	2.8	1.8	Good tip.
Jubilee	9	75	1915	155	93	2.0	2.0	.68	7.8	1.7	2.8	2.0	Bright.Attractive
Epic	4	75	1633	151	94	3.0	2.8	.77	8.2	1.7	2.9	1.7	Excellent tip fill.
WH 115	5	75	1834	146	90	2.0	2.7	.67	7.1	1.9	2.7	2.0	White.
Gold Winner	5	75	1703	136	98	2.0	1.8	.67	7.7	1.7	2.8	2.0	Good tip.
RxP 218	6	75	1572	135	95	3.0	2.5	.71	7.5	1.8	2.9	1.9	Large kernels. Tough husk.
Sugarloaf	7	77	2127	164	93	2.0	1.0	.64	7.8	1.7	2.8	1.9	-----
70-2070	9	77	1865	154	91	3.0	2.0	.69	7.9	1.8	2.9	1.9	Bicolor? Or Xenia?
YW 1465	5	77	1461	123	96	3.0	1.0	.70	8.2	1.7	2.6	2.0	Uniform. Good tip.
Merit	2	78	1925	182	93	2.5	1.0	.79	8.4	1.9	2.8	1.7	Good tip.
Resister	4	79	2046	179	96	2.5	1.0	.74	8.5	1.9	2.7	2.0	-----
Seneca RxP 223	8	79	2137	172	92	3.0	1.5	.67	7.5	1.8	2.9	2.0	Bright yellow.
W 9625	5	83	2530	214	96	1.5	2.0	.71	8.2	1.7	2.7	2.3	White or bicolor.
H-445	5	83	2328	183	91	2.0	2.0	.66	7.6	1.7	2.7	2.2	Good tip.
Seneca RxP 214	8	83	2147	177	94	3.0	2.0	.70	8.2	1.7	2.7	2.0	Pale. Poor tip.
Sweet Sue	5	83	1663	163	96	3.0	1.2	.82	8.0	1.9	2.8	2.0	Bicolor. Good tip.
Sensation 95	10	84	2137	191	88	1.0	1.0	.75	9.2	1.9	2.6	2.0	Good tip. Yellow.
Silver Sensation	10	84	2399	187	88	3.0	2.0	.65	8.1	1.8	2.6	2.0	Bright. Looks uniform.
Silver Queen	9	84	2056	184	87	3.0	3.0	.75	8.0	1.7	2.7	2.0	White.Good fill.
Commander	2	84	1592	172	95	2.0	2.0	.91	8.6	2.0	2.7	2.1	Deep yellow.
Capitan	2	84	1986	171	93	1.2	1.3	.72	8.8	1.7	2.6	2.0	Pale yellow.
WH1234	5	84	2086	167	90	2.0	2.0	.67	8.1	1.7	2.7	2.0	Looks poor. Bicolor-white. Good tip.
Average	-	--	1839	144	92	2.5	1.8	.71	7.9	1.7	2.8	2.0	
LSD .05	-	--	361	32	0.1	0.2	0.04	.97	0.3	0.06	0.1	0.1	

(1) Entries ranked by observed days to first harvest and yield in cwt.

(2) 1, poor; 3, excellent.

(3) General appearance of husked ears; 1, poor; 3, excellent.

(4) 1, under; 3, overmature.

TABLE 2.--Average Yield, Ear Size, and other Characteristics of Observational Sweet Corn Entries,
Green Springs, 1977.

Entry ¹	Source	Days to Harvest	Mkt. Yield			Tip ² Cover	Husk ² tight- ness	Avg. Ear Size			Uni- ³ formity	Avg. ⁴ maturity	Comments
			Doz/	Cwt/	%			Wt. (lb.)	Lgth. In.	Dia. In.			
Earlivee	12	62	1371	103	100	2.5	2.0	.63	7.0	1.6	2.7	1.8	Gaps between kernel rows.
Seneca RxP 27	8	75	2056	170	94	3.0	2.0	.69	7.1	1.7	2.7	2.0	Large. Good tips. Heavy ears.
Target A	3	75	1572	158	98	1.0	1.0	.84	8.7	2.0	2.5	2.0	Fair appearance. Heavy butt.
Sugar Daddy	3	75	1694	145	94	2.0	2.0	.71	7.9	1.7	2.7	2.0	-----
Sugar Dots	3	75	1936	136	97	2.0	3.0	.59	6.9	1.6	2.8	2.0	Bicolor. Purple husk.
Reliance	7	75	1533	132	91	2.0	2.0	.72	7.7	1.8	2.5	2.0	Fair
Wintergreen	2	75	1411	113	98	2.0	2.7	.67	7.7	1.5	1.3	2.0	Bicolor. Poor appearance.
Buttercorn	1	75	1008	69	69	2.0	1.2	.57	6.7	1.8	2.7	2.0	Bicolor. Good tips.
Gold Cup	5	77	1977	132	94	2.0	3.0	.56	7.4	1.6	3.0	2.0	Good.
Kandy Corn	12	79	1814	146	91	1.0	1.0	.67	8.4	1.7	1.0	2.0	Purple husk. Mediocre.
Comet	2	79	1653	136	97	2.0	1.0	.69	8.0	1.7	2.8	2.0	-----
LM8	11	79	1330	120	100	2.0	1.0	.75	8.2	1.8	2.9	2.0	Easy to husk.
Fanfare	9	79	1371	120	87	2.0	2.0	.73	7.8	1.9	2.9	2.2	Heavy cob.
Patriot	9	82	1573	130	94	2.0	---	.69	8.0	1.7	2.7	2.0	Poor tip development.
Pageant	9	82	1412	130	94	2.0	2.0	.77	8.1	2.0	2.8	2.5	Bright yellow. Some poor tip fill
Hallmark	7	82	1411	125	98	3.0	2.0	.74	8.9	2.0	2.9	2.0	Poor tip fill.
Stylepak	3	83	1694	176	89	3.0	1.0	.87	8.1	1.8	2.7	2.0	Good.
Golden Sweet	12	83	1492	135	98	1.5	2.0	.75	8.6	1.8	2.7	2.0	Pale yellow. Poor tips.
White Delight	13	83	1653	119	79	1.2	2.0	.60	8.4	1.5	2.8	2.0	White. Small cob. O.K.
LM11	11	83	1451	110	92	2.0	2.0	.63	8.5	1.5	---	2.3	Bland flavor. Uneven rows.
Midway	2	84	2218	188	94	2.0	2.0	.71	8.0	1.8	2.8	2.2	Good tips.
Silver Treat	1	84	1734	151	93	2.0	2.0	.73	8.7	1.8	2.7	2.3	Bicolor. Poor tips.

(1) Entries ranked by observed days to first harvest and yield in cwt. per acre.

(2) 1, poor; 3, excellent.

(3) General appearance of husked ears: 1, poor; 3, excellent

(4) 1, under; 3, overmature.

TABLE 3.--U.S. No. 1 Yields in Dozens of Ears per Acre. Green Springs
Sweet Corn Trials. 1973-1977

Variety ¹	1973	1974	1975	1976	1977
<u>EARLY AND MEDIUM EARLY</u>					
Sprite	----	1317	1718	----	----
Sundance	2022	1336	1948	----	----
Earliking	1716	----	2044	----	----
Royal Crest	1540	605	1960	----	----
Spring Gold	2002	1219	1754	1239	----
Harmony	----	1531	1706	----	1119
Sugar Daddy	----	----	1815	----	----
Commanche	----	----	1766	----	1824
Yukon	1555	1034	1536	----	----
Bonanza	2195	----	1863	1366	----
Butter & Sugar	----	633	1645	----	----
Fanfare	----	----	1742	1298	----
Bellringer	----	1453	2020	1434	----
Golden Earlipak	----	927	----	----	----
Golden Sensation	----	946	----	----	----
F.M. Cross Rapid Pak	----	1132	----	----	----
Polarvee	540	----	----	----	----
Morning Sun	1740	----	----	----	----
Seneca 60-11	1671	----	----	----	----
Beacon	----	----	----	1327	1522
RXP 193	----	----	----	1112	----
Aztec	----	----	----	1678	1441
Sun Chief	----	----	----	1386	----
Earlibelle	----	----	----	1493	----
Reliance	----	----	----	1229	----
E 4230	----	----	----	1181	----
E 4231	----	----	----	1600	----
Eastern Belle	----	----	----	1132	----
Spring White	----	1678	----	----	----
Seneca Pathfinder	----	----	----	----	927
<u>MIDSEASON</u>					
Gold Cup	2091	1756	2117	2117	----
Merit	1839	----	1778	1493	1925
Seneca Star	1644	1249	1911	----	1250
Apache	----	1639	2105	1786	----
Exp. 2583	----	----	1476	----	----
J. L. 49	----	----	1754	----	----
Epic (NCX 2004)	----	----	1863	1542	1633
Silver Sensation	1835	1766	----	----	2399
Preview	----	1102	----	----	----
Tri-Gold	----	1346	----	----	----
Triumphant	1338	1366	----	----	----
Tendersweet	----	1327	----	----	----
Grand Master	----	1141	----	----	----
Bravo	1414	----	----	----	----
Goldenrod	1911	----	----	----	----

TABLE 3.--U.S. No. 1 Yields in Dozens of Ears per Acre. Green Springs
Sweet Corn Trials. 1973-1977 (cont.)

Variety ¹	1973	1974	1975	1976	1977
Northern Belle L.	1839	-----	-----	-----	-----
Goldie	1880	-----	-----	-----	-----
Top Style	1562	-----	-----	-----	-----
Gold Crown	2316	-----	-----	-----	-----
Gold Winner	1519	-----	-----	-----	1703
NK-199	-----	-----	-----	1522	-----
Seneca Scout	1851	-----	-----	1561	-----
Sugar Loaf	-----	-----	-----	1659	2127
Sugar Dots	-----	-----	-----	1103	-----
Jubilee	-----	-----	-----	-----	1915
Cherokee	-----	-----	-----	-----	2238
WH 115	-----	-----	-----	-----	1834
RXP 218	-----	-----	-----	-----	1572
<u>LATE</u>					
70-2070	-----	-----	-----	1688	1865
Pageant	-----	-----	-----	1366	-----
Comet	-----	-----	-----	1317	-----
E 4219	-----	-----	-----	1229	-----
Resister	-----	-----	-----	1434	2046
Hallmark	-----	-----	-----	1327	-----
Salute	-----	-----	-----	1317	-----
Sweet Sue	-----	1385	1706	1610	1663
70-2367	-----	-----	-----	1463	-----
White Delight	-----	-----	-----	2088	-----
Bi-Queen	-----	-----	2081	1776	-----
Winter Market	-----	-----	1718	-----	-----
RXP 199	-----	-----	2250	-----	-----
Style Pak	-----	-----	1645	-----	-----
Capitan	-----	1551	2165	-----	1986
Seneca Chief	-----	-----	2165	-----	-----
Silver 'n Gold	-----	1434	-----	-----	-----
Sensation	-----	-----	-----	-----	-----
Moonglow	-----	1414	-----	-----	-----
Commander	-----	1453	-----	-----	1592
Glacier	-----	1239	-----	-----	-----
Golden Shipper	2115	-----	-----	-----	-----
Midway	1982	-----	-----	-----	-----
Golden Queen	1465	-----	-----	-----	-----
Honey Cross	1793	-----	-----	-----	-----
Victory Golden	1815	1814	-----	-----	-----
YW 1465	-----	-----	-----	-----	1461
Seneca RXP 223	-----	-----	-----	-----	2137
W 9625	-----	-----	-----	-----	2530
H 445	-----	-----	-----	-----	2328
Seneca RXP 214	-----	-----	-----	-----	2147
Sensation 95	-----	-----	-----	-----	2137
WH 1234	-----	-----	-----	-----	2086

TABLE 3.--U.S. No. 1 Yields in Dozens of Ears per Acre. Green Springs
Sweet Corn Trials. 1973-1977 (cont.)

Variety ¹	1973	1974	1975	1976	1977
Average	1752	1298	1868	1466	1839

(1) Seasonal classifications are only approximate and based primarily on performance at Green Springs.

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