

**Report to the Oregon Processed Vegetable Commission
1991-1992**

1. **Title:** Supersweet corn variety evaluation
2. **Project Leaders:** J. R. Baggett, Horticulture
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3. **Project Status:** Terminating June 30, 1992
4. **Project Funding:** \$6,150 field trials
\$1,296 supplemental technical support
\$2,400 processing
\$9,825

Funds were used for research farm expenses and labor for harvesting, processing, and evaluation of corn samples.

5. **Objectives:**
 - A. To determine relationships among maturity time, percent moisture, yield, flavor, texture, color, and appearance in SE varieties.
 - B. To determine the production and processing potential of new introductions of sweet corn.
6. **Report of Progress:**
 - A. **Yield and quality of SE sweet corn varieties on multiple harvest dates.**

Five SE corn varieties, with Jubilee as a control, were planted May 28, 1991 in a randomized complete block design with four replications. The random design was modified so that Jubilee was always on the north or south edge (alternating with replications, with several border rows on the edge) and separated from the SE varieties by three extra rows of SE corn. This arrangement was used to reduce the loss of SE quality factors in SE varieties because of pollination by Jubilee. Each plot included 3 rows 80 feet long. Rows were overseeded and thinned to a minimum spacing of about 8 inches between plants (approximately 22,000/acre), in rows 36" apart. Final stands varied somewhat, and generally ranged from 35-38 per 25 foot plot (8.6" to 7.9" between plants) as shown in Table 1. The plots received 450 lbs. of 12-29-10 fertilizer banded at planting, and 145 lbs. N as urea on July 10. Irrigation was applied as needed. Each variety was harvested seven times, at approximately 2 to 3 day intervals (usually two). We planned to harvest each

variety for the first time at 76% H₂O but actual first harvest moisture % ranged from 78 to 75. Seven harvests were made of each variety; the last harvests ranged from 67.8 to 69.6% H₂O.

Field data are shown in Table 1 for the seven harvests and as variety means. Yield data were obtained from the 25-foot samples, and the remaining data were obtained from 20 ears/replication, carefully sorted to represent the typical maturity for the harvest date. Ear samples from each replication were combined and delivered to the Department of Food Science and Technology for canning and freezing, and determination of percent moisture and cut-off percentage. Processed quality evaluations will be presented in a supplementary report. Except for pericarp toughness, measured at harvest by puncture test, it is not possible to relate quality, maturity, and production until quality evaluations are completed.

Varieties outstanding for yield were SE varieties GH 2419 and XPH 3013. The remaining varieties were similar and close to Jubilee. GH 2419 had the longest and heaviest ears by a good margin and also had a good percent cut-off. Summarized evaluation of the field notes follows (additional subjective scores and notes are given in Table 4).

Incredible. Fair yield, ear size, and tenderness; lowest percent cut-off, rough, pale ears, often curved, good flavor.

Citadel. Bad for curved ears, good flavor but highest toughness measurements. Average yields (same as Jubilee) and ear size. Ear length and percent cut-off were good.

GH 2419. The outstanding variety for production and ear size. Toughness measurements were lowest and flavor and color were judged to be good. This variety appeared to be slow in moisture change, never getting below 70%.

XPH 3013. High yielding, good ear size, and cut-off percent. Tenderness only fair. Average flavor, color OK. This hybrid had noticeable lodging.

GH 1676. Yield same as Jubilee. Ear length and weight were lowest, even though moisture range for the harvests was low. Ear size started low, but final weight was better. Performed much like Jubilee, but ears slightly shorter. Toughness score low, but subjective notes indicated chewy kernels. Uniformity was poor and flavor was good.

Jubilee. Only fair in production and appeared to be adversely affected by the cold early season. For example, few plants had two good ears, though it should be noted that the stand was a little high. Flavor and overall ear scores were good.

B. Replicated single-harvest trials.

Single-harvest, four-replication yield trials included 18 supersweet varieties in one planting made on June 13, and 17 SE and sugary (ordinary sweet corn) varieties planted on May 31. The supersweet and SE-sugary trials were grown in separate fields about 200 yards apart. Additionally, 8 varieties of supersweet and 9 varieties of SE or sugary types were grown in single plots for yield and observation in the respective isolated plantings. Culture, spacing, etc. of these trials was essentially the same as described for the harvest date SE study. Plots were 30' long from which 25' were harvested. Promising processing varieties were canned and frozen, but this did not include varieties already processed in the multiple harvest date study.

From the replicated supersweet varieties (Tables 5 and 7), the following yellow varieties looked promising:

Fanciful. Good yield, fair tenderness, ears slightly small, flavor fair to good.

GSS 3492. Good yield, long ears, good flavor, somewhat tough.

FMX 284. Good yield, very straight long ears, tender, fair flavor.

Supersweet Jubilee. Very good yield of medium-sized ears, good color, very good flavor, fair tenderness.

Challenger. Good yield, variable but best ears were good size and quality, good flavor, fairly tough.

Zenith. Good yield of small ears, very good flavor, tender.

Also included in the trial was Crisp 'n Sweet 710, a variety in current use. Yields of Crisp 'n Sweet 710 was good, but the pericarp was tough. Most other varieties observed generally lacked refinement, yield, or uniformity.

Of the regular sweet corn varieties (Tables 2 and 4) in the replicated trial, 5 looked promising. They were:

GH 1703. Good yield, very uniform, good color, good flavor.

Renown. Very good yield, very refined ears, tender.

FMX 292. Good yield, long ears, uniform, tender.

Rely. Good yield, refined ears but poor tip fill.

FMX 293. Very good yield, long ears, refined, tough.

C. Single-plot observation trials of 10 supersweet and 9 sweet or SE varieties did not result in the identification of varieties which should be included in future trials. In many cases, especially in the supersweet varieties, pericarp toughness was a noticeable problem.

7. Summary:

A multiple harvest date trial of five promising SE corn hybrids with Jubilee as control indicated that GH 2419 and XPH 3013 may be promising for yield and ear size, although XPH 3013 may be lodging susceptible. GH 2419 was also promising for flavor, tenderness, and slowness to become overmature. Relating the yields obtained at levels of moisture with processed acceptability will be done when panel evaluations are completed.

Replicated single-harvest trials of 18 supersweet and 17 SE + sugary varieties indicated that recent supersweet introductions Fanciful, GSS 3492, FMX 284, Challenger, and Zenith should be tried again. Supersweet Jubilee and Crisp 'n Sweet 710 were competitive with new varieties. Su varieties GH 1703, Renown, FMX 292, Rely, and FMX 293 deserve further trial.

8. Signatures:

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Date

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Date

Table 1. Yield and ear measurements of sugary enhancer (se) corn varieties on seven harvest dates, Corvallis, Oregon, 1991¹ (cont.).

Variety	Harvest Date	Plants/25 ft.	Percent Moisture	No. ² Good Ears	T/A Good Ears	T/A Culls	Lbs/Ear	Ear Length (in.)	Ear Diam. (in.)	Percent Cut-off	Pericarp ³ Toughness
XPH 3013	8/30	36	77.0	26.3	8.0	0.9	0.61	8.3	1.9	59.3	117
	9/2	36	73.3	24.5	8.4	0.3	0.69	8.3	2.0	61.7	76
	9/3	37	72.7	24.8	8.8	0.8	0.71	8.3	2.1	62.2	104
	9/5	37	71.6	26.7	9.5	0.9	0.71	8.2	2.1	62.0	111
	9/7	35	70.7	25.3	9.4	0.9	0.75	8.3	2.1	61.7	117
	9/9	37	68.9	24.1	9.0	0.7	0.75	8.3	2.1	59.3	133
	9/11	37	68.1	25.1	9.9	0.6	0.79	8.3	2.2	59.6	126
mean		37		25.3	9.0	0.7	0.72	8.3	2.1	60.8	112
GH 1676	9/5	36	75.3	21.5	5.5	1.3	0.52	7.5	1.9	56.3	103
	9/7	35	74.3	23.1	6.2	0.7	0.54	7.7	1.9	57.8	93
	9/9	35	72.3	24.5	6.8	0.8	0.56	7.5	1.9	62.5	103
	9/11	35	70.2	24.7	7.7	1.1	0.62	7.7	2.0	60.0	100
	9/13	36	69.7	27.5	8.7	0.5	0.63	7.6	2.0	77.7	102
	9/16	35	68.8	29.3	9.7	0.4	0.66	7.8	2.1	62.7	95
	9/18	35	68.1	26.7	9.6	0.7	0.72	7.7	2.1	70.4	107
mean		35		25.3	7.7	0.8	0.61	7.6	2.0	63.9	100
Jubilee	9/3	37	76.4	23.7	6.3	1.1	0.53	7.9	1.9	55.9	105
	9/4	38	74.3	23.7	6.7	0.7	0.57	8.0	1.9	59.7	104
	9/6	37	74.6	23.2	6.9	0.6	0.60	7.9	1.9	61.3	93
	9/9	39	70.9	24.0	7.6	0.6	0.63	7.9	2.0	63.5	110
	9/11	37	69.8	25.7	8.7	1.5	0.68	8.0	2.0	65.0	96
	9/13	38	68.4	27.5	9.4	1.1	0.69	8.0	2.1	61.4	107
	9/16	38	67.8	25.1	9.1	0.8	0.73	7.9	2.1	68.4	102
mean		38		24.7	7.8	0.9	0.63	7.9	2.0	62.2	102
LSD at 5% for variety means				2.0	0.7	0.2	0.02	0.1	0.03		3

¹ All values except % moisture and % cut-off are means of 4 replications; for ear length, ear diameter, and tenderness, the value used for each replication was the mean of 20 individual ear measurements. Planting date: May 28.

² Number of ears/acre divided by 1,000.

³ Comparative scale determined by a Chantillon spring puncture gauge; lower numbers indicate more tender pericarp.

Table 1. Yield and ear measurements of sugary enhancer (se) corn varieties on seven harvest dates, Corvallis, Oregon, 1991¹.

Variety	Harvest Date	Plants/ 25 ft.	Percent Moisture	No. ² Good Ears	T/A Good Ears	T/A Culls	Lbs/ Ear	Ear Length (in.)	Ear Diam. (in.)	Percent Cut-off	Pericarp ³ Toughness
Incredible	9/3	40	76.2	25.0	7.2	1.7	0.58	7.9	1.9	46.3	101
	9/5	38	73.9	24.0	7.7	1.4	0.65	8.0	2.0	55.7	99
	9/7	39	72.8	20.5	7.3	1.7	0.72	8.0	2.1	59.7	98
	9/9	37	70.8	22.9	7.7	1.4	0.68	8.0	2.1	59.5	123
	9/11	37	70.7	21.1	7.6	1.3	0.73	8.0	2.1	56.0	111
	9/13	39	69.6	22.7	8.5	1.1	0.75	8.0	2.1	58.8	111
	9/16	37	68.6	22.9	8.8	1.2	0.77	8.0	2.1	60.4	131
mean		38		22.7	7.8	1.4	0.70	8.0	2.1	56.6	111
Citadel	9/3	36	74.6	20.3	6.7	0.9	0.66	8.4	1.9	58.1	103
	9/4	36	73.9	21.2	6.7	0.7	0.64	8.3	1.9	61.6	106
	9/6	36	72.6	18.4	6.4	1.1	0.69	8.3	2.0	63.0	125
	9/9	35	69.8	21.6	7.8	0.5	0.72	8.3	2.1	63.1	124
	9/11	37	69.7	22.9	8.6	0.8	0.75	8.3	2.1	69.4	125
	9/13	36	68.8	21.6	8.4	0.9	0.78	8.5	2.1	71.4	135
	9/16	37	67.9	22.2	9.2	1.0	0.83	8.4	2.2	63.2	139
mean		36		21.2	7.7	0.8	0.72	8.4	2.0	64.3	122
GH 2419	9/3	36	78.2	22.8	7.6	0.6	0.67	9.0	1.9	61.5	73
	9/5	37	76.6	22.7	8.0	0.7	0.71	9.0	1.9	60.3	103
	9/7	35	75.0	25.7	9.3	0.4	0.72	9.0	2.0	62.1	83
	9/9	35	73.2	24.0	9.2	0.8	0.77	9.0	2.1	65.4	89
	9/11	35	71.8	25.1	10.3	0.2	0.83	9.1	2.1	64.8	93
	9/13	35	70.4	24.4	9.9	0.3	0.82	9.0	2.1	68.8	111
	9/16	35	70.6	24.3	10.5	1.0	0.86	9.1	2.1	67.9	105
mean		36		24.1	9.3	0.6	0.77	9.0	2.0	64.4	94

Table 2. Yield and ear measurements, sugary enhancer (se) and sweet (su₁) corn replicated trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Type ³	Silk Date	Days to Harvest	Stand	Good Ears			Culls		Lbs/Ear	Ear Length (in.)	Ear Diam. (in.)	Kernel Depth (mm)	Pericarp Toughness ⁴
						1000/A	T/A	No./Plant	1000/A	T/A					
*GH 1703	1	Y su	8/5	95	42	23.2	7.6	1.0	1.7	0.4	0.65	7.8	2.0	11.5	120
*Rival	2	Y su	8/10	97	41	22.9	6.5	1.0	1.7	0.3	0.57	7.2	1.9	12.0	111
*Renown	3	Y su	8/12	102	38	20.6	8.7	0.8	3.3	0.9	0.84	7.8	2.1	12.5	96
*Jubilee	1	Y su	8/11	102	42	27.3	8.4	1.1	5.2	1.1	0.61	7.8	2.0	13.0	112
*FMX 292	4	Y su	8/9	103	40	25.0	8.1	1.1	2.2	0.4	0.65	8.2	1.9	12.0	110
*Rely	3	Y su	8/12	103	41	21.4	8.0	0.9	3.2	0.9	0.75	7.9	2.1	13.0	119
*Cornucopia	4	Y su	8/13	103	40	23.5	8.3	1.0	3.1	0.7	0.71	8.3	2.0	12.3	111
*FMX 293	4	Y su	8/12	103	41	24.8	9.1	1.0	3.6	0.9	0.73	8.4	2.0	12.3	140
*More	2	Y su	8/13	104	41	26.1	8.2	1.1	1.6	0.3	0.63	7.5	2.0	12.5	117
Gallant	3	Y su	8/14	104	41	19.6	6.1	0.8	7.0	1.5	0.63	8.0	1.9	11.7	121
Champ	2	Y se	8/2	94	40	23.4	7.2	1.0	2.0	0.4	0.62	7.6	2.0	11.0	136
*Terminator	3	Y se	8/7	101	44	27.3	9.4	1.1	6.8	1.6	0.69	8.0	2.0	13.0	153
*GH 2419	1	Y se	8/8	102	39	24.8	9.3	1.1	2.8	0.6	0.75	8.6	2.1	14.0	101
*XPH 3013	2	Y se	8/8	102	37	21.4	8.2	1.0	4.5	1.1	0.77	8.1	2.1	13.0	128
*Esca	5	Y se	8/12	103	39	22.2	6.6	1.0	1.3	0.2	0.59	7.9	1.9	11.3	115
*Citadel	1	Y se	8/8	103	38	20.3	7.3	0.9	3.8	1.1	0.72	8.2	2.0	13.0	137
*GH 1676	1	Y se	8/9	104	37	28.2	9.3	1.3	3.5	0.7	0.66	7.6	2.0	13.3	103
LSD at 5%						3.8	1.4		3.1	0.7	0.06	0.2	0.06	0.9	19

¹Planted May 31 in 36" rows. All values shown are means of 4 replications. For ear length, ear diameter, and tenderness, the value used for each replication was the average of 20 individual ear measurements.

²Sources: 1 = Rogers, 2 = Asgrow, 3 = Crookham, 4 = Ferry-Morse, 5 = Agrigenetics.

³Endosperm type: Y = yellow; su = sweet, se = sugary enhancer.

⁴Tenderness determined by a spring-operated puncture gauge; lower numbers indicate more tender pericarp.

*Varieties selected for processing.

Table 3. Yield and ear measurements, sugary enhancer (se) and sweet (su,) corn observation trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Type ³	Silk Date	Days to Harvest	Stand	Good Ears			Culls		Lbs/ Ear	Ear Length (in.)	Ear Diam. (in.)	Kernel Depth (mm)	Pericarp Toughness ⁴
						1000/A	T/A	No./Plant	1000/A	T/A					
Early Sunglow	1	Y su	8/2	89	46	24.4	4.6	0.9	3.5	0.5	0.38	6.7	1.7	11	135
Sunre 2711	2	Y su	8/2	89	40	21.5	6.6	0.9	2.3	0.4	0.62	7.4	2.0	11	138
GH 35	3	Y se	8/5	95	36	19.8	6.2	0.9	4.6	0.9	0.63	8.6	1.9	12	89
Sunre 2707	2	Y su	8/8	97	42	23.2	6.3	1.0	1.7	0.3	0.54	6.9	1.9	13	126
GH 2759	3	Y se	8/12	102	43	15.7	5.2	0.6	2.3	0.5	0.67	7.9	2.1	13	95
Sunre 2709	2	Y su	8/13	103	36	21.5	7.0	1.0	0.6	0.1	0.65	7.4	2.1	12	91
Sunre 2718	2	Y su	8/9	103	30	26.9	8.7	1.3	0.6	0.1	0.82	7.9	2.2	14	113
Esteem	4	Y se	8/12	103	31	16.8	5.7	0.9	2.3	0.5	0.68	7.9	2.0	13	143
Sweet Pak	4	Y se	8/13	104	42	25.0	7.7	1.0	2.3	0.5	0.62	7.8	1.9	12	111

¹Planted May 31 in 36' rows. Yield estimates are from a single 25' plot. For ear length, ear diameter, and tenderness, the value shown is the average of 20 individual ear measurements.

²Sources: 1 = Burpee, 2 = SunSeeds, 3 = Rogers, 4 = Harris-Moran.

³Endosperm type: Y = yellow; su = sweet; se = sugary enhancer.

⁴Comparative scale determined by a spring-operated puncture gauge; lower numbers indicate more tender pericarp.

Table 4. Descriptive observations, sugary enhancer (se) and sweet (su₁) corn variety trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Kernel Refinement	Row Straightness	Tip Fill	Cylind. Shape	Ear Unif.	Mat. Unif.	Kernel Unif.	Flavor	Overall Score	Row #	Notes
GH 1703	1	2	4	3	4	4	4	4	4	4	16	fairly coarse but neat, uniform, good color
Rival	2	4	4	3	4	3	3	3	4	3.5	16	very short
Renown	3	5	4	3	3	4	4	4	3.5	4	24	
Jubilee	1	4	4	3	3	3	3	4	3.5	3.5	18	
FMX 292	4	3	3	4	3	4	4	4	3	3	18	neat ears
Rely	3	4	3	2.5	3	3	2	3.5	3.5	3	20	neat ears but poor tip fill
Cornucopia	4	5	3	3	4	3	4	3.5	2	3	22	nice looking ears but pale color
FMX 293	4	4	3	4	3	3	4	3	3.5	3	18-20	sl. pale, uniform, neat ears, tough
More	2	4	4	3	3	4	4	4	2	3	18	small, neat, pale yellow ears, no sweetness
Gallant	3	5	4	1	3	4	3	5	4	3	20-22	not productive, very poor tip fill, otherwise nice looking
Champ	2	2	2	4	3	3	3	2	4	3	16-20	coarse, rough ears
Terminator	3	3	3	4	2	2	3	3	2	2	18	pale color, quite variable in shape and size, not sweet
GH 2419	1	2.5	4	3.5	4	4	4	3	4	3.5	16-18	very long ears, good color, sl. coarse, very good flavor
XPH 3013	2	3	3	4	4	4	4	3	3	3	18	sl. pale color, lodging susceptible
Esca	5	4	3	3	2	3	2	3	4	2.5	16	very narrow, pointed, curved ears, pale, very sweet
Citadel	1	5	2	5	4	3	2	2	3.5	2.5	20	pale color, curved ears, rough

Table 4. Descriptive observations, sugary enhancer (se) and sweet (su₁) corn variety trial, Corvallis, Oregon, 1991¹ (cont.).

Variety	Source ²	Kernel Refinement	Row Straightness	Tip Fill	Cylind. Shape	Ear Unif.	Mat. Unif.	Kernel Unif.	Flavor	Overall Score	Row #	Notes
GH 1676	1	4	3	2.5	4	1	2	4	3.5	2.5	14-20	variable for size and shape
Incredible	3	4	1	3	3	2	3	1	4	2	18-22	rough, pale, curved ears
Early Sunglow	6	3	4	1	3	2	3	3	1	1	12	very small ears, early, possible home garden
Sunre 2711	7	4	3	2	4	3	4	4	2	3	16	fat Jubilee shape, short ears
GH 35	1	3	3	3	2	3	2	2	4	3	18	many curved ears, pale, rough, pointed
Sunre 2707	7	4	3	2	5	3	4	4	3	3	20	not productive, short ears, uniformly blank tips
GH 2759	1	4	3	3	2	3	4	3	3.5	2.5	18	pale
Sunre 2709	7	4	3	3	2	3	2	2	2	2.5	20-22	short, fat, pointed ears, variable, pale
Sunre 2718	7	2	2	1	1	2	2	1	1	1	20	very fat, rough ears
Esteem	8	4	3	4	4	2	3	4	3	3.5	16-18	good corn flavor but not sweet, tough
Sweet Pak	8	5	3	2	4	3	3	3	2.5	2.5	18-22	not sweet, uniformly poor tips

¹Planted May 31, 3' between rows, thinned to about 8" between plants. Scores 1-5 scale, 5 = best; overall score based on general characteristics of harvested ears.

²Sources: 1 = Rogers, 2 = Asgrow, 3 = Crookham, 4 = Ferry Morse, 5 = Agrigenetics, 6 = Burpee, 7 = SunSeeds, 8 = Harris-Moran.

Table 5. Yield and ear measurements, supersweet (sh₂) corn replicated trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Silk Date	Days to Harvest	Stand	Good Ears			Culls		Lbs/ Ear	Ear Length (in.)	Ear Diam. (in.)	Kernel Depth (mm)	Pericarp Tough- ³ ness
					1000/A	T/A	No./plant	1000/A	T/A					
XPH 3027	1	8/13	92	35	19.8	5.9	1.0	2.0	0.4	0.60	8.0	1.9	13.0	118
*FMX 285	2	8/15	95	34	19.6	7.1	1.0	1.9	0.4	0.72	7.9	2.1	11.0	108
*Fanciful	3	8/16	95	36	26.3	7.7	1.3	5.1	1.0	0.58	7.5	2.0	12.5	124
*GSS 3492	4	8/16	96	36	19.6	8.0	0.9	2.0	0.5	0.83	7.8	2.2	13.7	133
Prominence	3	8/17	96	35	20.3	6.6	1.0	1.7	0.4	0.65	8.0	2.0	12.3	137
*Zenith	5	8/19	98	37	27.5	7.2	1.3	1.9	0.4	0.52	7.6	1.9	12.0	115
*Crisp 'n Sweet 710	3	8/17	98	39	23.2	8.0	1.0	0.9	0.2	0.69	8.4	2.1	13.0	135
*Challenger	1	8/18	98	37	21.5	7.4	1.0	0.9	0.3	0.69	8.2	2.1	13.3	154
*FMX 284	2	8/19	99	37	21.1	7.7	1.0	1.7	0.3	0.73	9.2	2.1	12.7	113
HMX 9352S	5	8/18	99	36	26.4	9.1	1.3	1.2	0.2	0.69	7.9	2.0	13.0	178
FMX 320	2	8/18	99	36	21.1	8.5	1.0	0.7	0.2	0.81	8.6	2.1	13.0	162
*Supersweet Jubilee	4	8/20	102	36	28.8	9.3	1.4	3.3	0.7	0.65	7.9	2.1	13.5	123
Tribune	3	8/19	102	35	23.7	7.6	1.2	1.7	0.3	0.64	7.6	2.1	13.7	167
XPH 3030 W	1	8/20	102	37	21.8	7.6	1.0	2.6	0.5	0.70	7.9	2.1	13.5	162
Even Sweeter	1	8/19	102	36	31.7	9.3	1.5	3.9	0.8	0.59	7.6	2.0	13.0	142
*Golden Gourmet	5	8/20	103	35	24.3	7.6	1.2	1.2	0.3	0.63	8.1	1.9	12.3	145
FMX 272	2	8/21	103	35	19.0	6.3	0.9	3.2	0.6	0.66	7.1	2.1	13.5	168
Crisp 'n Sweet 730	3	8/20	103	35	21.6	6.7	1.1	1.2	0.2	0.62	7.6	2.0	13.3	158
LSD at 5%					2.5	1.1		1.6	0.3	0.08	0.2	0.05	0.6	12

¹Planted June 13 in rows 36" apart. All values shown are means of 4 replications arranged in randomized complete blocks. All data except cull no. and T/A were obtained from typical husked good ears. For ear length, ear diameter, and tenderness, the value used for each replication was the average of 20 individual ear measurements.

²Sources: 1 = Asgrow, 2 = Ferry Morse, 3 = Crookham, 4 = Rogers Brothers, 5 = Harris-Moran.

³Comparative scale, determined by a spring-operated puncture gauge; lower numbers indicate more tender pericarp.

*Varieties selected for processing.

Table 6. Yield and ear measurements, supersweet (sh₂) corn observation trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Silk Date	Days to Harvest	Stand	Good Ears			Culls		Lbs/ Ear	Ear Length (in.)	Ear Diam. (in.)	Kernel Depth (mm)	Pericarp Toughness ³
					1000/A	T/A	No./plant	1000/A	T/A					
WSS 4948	1	8/14	92	34	19.8	5.7	1.0	0.6	0.1	0.58	7.1	2.1	13	111
Nun 9026	2	8/15	95	37	18.6	5.9	0.9	2.3	0.5	0.64	8.2	2.0	12	146
Ivory 'n Gold	3	8/17	95	36	32.0	9.4	1.5	2.9	0.7	0.59	8.3	2.0	12	158
Honey 'n Pearl	3	8/17	95	35	23.2	7.9	1.1	1.2	0.3	0.68	8.1	2.1	12	144
BSS 4273	1	8/15	95	35	22.1	6.6	1.1	0.6	0.1	0.60	7.6	2.0	12	161
Phenomenal	4	8/19	99	36	14.5	3.0	0.7	4.1	0.7	0.42	6.9	1.9	11	134
SCH 4035	3	8/18	99	33	23.2	7.3	1.2	3.5	0.8	0.63	8.3	2.0	12	149
Showcase	1	8/19	102	35	20.9	7.4	1.0	0	0	0.70	7.7	2.1	13	142
SCH 5245	3	8/18	102	31	17.4	6.5	1.0	1.2	0.2	0.75	8.6	2.1	15	181
SCH 6152	3	8/21	102	37	20.9	6.7	1.0	0	0	0.64	8.3	1.9	13	192

¹Planted June 13 in rows 36" apart. All data except cull no. and T/A were obtained from typical husked good ears. For ear length, ear diameter, and tenderness, the value shown is the average of 20 individual ear measurements.

²Sources: 1 = Rogers, 2 = Cannors, 3 = Illinois Foundation Seed, 4 = Crookham.

³Comparative scale, determined by a spring-operated puncture gauge; lower numbers indicate more tender pericarp.

Table 7. Descriptive observations, supersweet (sh₂) corn trial, Corvallis, Oregon, 1991¹.

Variety	Source ²	Color	Kernel Refinement	Row Straightness	Tip Fill	Cylind. Shape	Ear Unif.	Mat. Unif.	Kernel Unif.	Flavor	Overall Score	Row #	Notes
XPH 3027	1	yellow	1	2	3	4	2	3	2	4	1	12-14	picks easily, very coarse
FMX 285	2	yellow	2	3	3	4	1	4	3	3	2	14-20	fairly coarse, variable, susceptible to lodging
Fanciful	3	yellow	3	2	2	4	4	4	3	3.5	3	16	sweet but tough, some fat ears (18-22 rows)
GSS 3492	4	yellow	3	3	3	4	3	3	3	4	3.5	16	nice looking except sl. pale; somewhat tough
Prominence	3	yellow	3	3	3	2	2	2	2	3	2.5	18-20	rough, pale, some curved ears, seems tough
Zenith	5	yellow	3	3	3.5	3	3	2	3	5	3.5	16-18	small, fairly refined ears but variable for tip fill and maturity; pale
Crisp 'n Sweet 710	3	yellow	3	2	3.5	2	2	3	2	3	2.5	18	curved, crooked ears, tough, pale
Challenger	1	yellow	3	3.5	2	4	2	2	4	4	3	16-20	quite variable, best ears are very good
FMX 284	2	yellow	2	4	4	4	4	4	4	3	4	16	very straight and long
HMX 9352S	5	yellow	3	3	2	3	2	3	2	2	2	16-18	very tough
FMX 320	2	yellow	2	1	2.5	4	2	3	1	4	2	16-18	very big ears, very rough
Supersweet Jubilee	4	yellow	4	4	2.5	3.5	3	3	4	5	4.5	16	good color, neat ears, worst fault is poor tips
Tribune	3	yellow	2.5	2	1	1	3	4	3	4	1.5	18	short, fat, pointed ears, very poor tip fill, tough
XPH 3030W	1	white	4	3	3	3.5	2.5	3	4	3	2	20	not productive, nice looking but very tough
Even Sweeter	1	white	4	3	2	3	2	3	3	4.5	3.5	18-20	variable tip fill, very good yield
Golden Gourmet	5	yellow	3.5	2.5	4	4	3.5	3.5	2	3	3	18-22	rough, picks easily, susceptible to lodging
FMX 272	2	yellow	4	2.5	1	4	1	3	3	2	1	16-24	short, fat, highly variable, poor tips, poor flavor, poor yield

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Table 7. Descriptive observations, supersweet (sh₂) corn trial, Corvallis, Oregon, 1991¹ (cont.).

Variety	Source ²	Color	Kernel Refinement	Row Straightness	Tip Fill	Cylind. Shape	Ear Unif.	Mat. Unif.	Kernel Unif.	Flavor	Overall Score	Row #	Notes
Crisp 'n Sweet 730	3	bicolor	4	3	4	3	4	2.5	4	4.5	4	16-18	very nice looking, not productive, sweet but tough
WSS 4948	4	white	3	2	3	4	3.5	3	3	2	2	16-18	very short ears, not productive
Nun 9026	6	yellow	2	3	2	5	3	2	3	3	2	14-16	curved ears, very pale, lodging susceptible
Ivory 'n Gold	7	bicolor	3	2	1.5	4.5	2	4	2	3	2.5	16	curved ears, pale
Honey 'n Pearl	7	bicolor	3	4	2.5	4	3	3	4	4	4	16	neat ears, good flavor
BSS 9273	4	bicolor	2	2	3	3	3	3	3	4	2.5	16	short, narrow, fairly coarse ears
SCH 4035	7	yellow	3	2	1	4	1	2	2	5	1.5	16-20	highly variable, many curved ears, many spades
Phenomenal	3	bicolor	4	3	1	3	2	2	3	5	1.5	14-18	small ears, very unproductive, good flavor
SCH 6152	7	yellow	2	3	3	3	2	4	3	3	3	14-18	variable length and tip fill, some curved ears
Showcase	4	yellow	3	2	4	4	2	3	2	3	2.5	18-20	somewhat rough
SCH 5245	7	yellow	1	3	1	4.5	2	3	3	3.5	2	16-18	some very bad extended tips, some curved ears

¹Planted June 13, 3' between rows, thinned to about 8" between plants. Scores 1-5 scale, 5 = best; overall score related to general characteristics of harvested ears.

²Sources: 1 = Asgrow, 2 = Ferry Morse, 3 = Crookham, 4 = Rogers Brothers, 5 = Harris-Moran, 6 = Canners, 7 = Illinois Foundation Seed.