

Agricultural Experiment Station  
AUBURN UNIVERSITY

R. Dennis Rouse, Director  
Auburn, Alabama

# Vegetable Variety Trials, 1974<sup>1</sup>

JACK L. TURNER and HARRISON BRYCE<sup>2</sup>

VEGETABLE VARIETY and breeding line<sup>3</sup> trials were conducted during 1974 at the Gulf Coast Substation, Fairhope; the Chilton Area Horticulture Substation, Clanton; the North Alabama Horticulture Substation, Cullman; the Sand Mountain Substation, Crossville; and the Main Station at Auburn. All trials were conducted in randomized replicated plots with proper recommended fertilizer rates and application for each crop and location being used. Disease and insect control measures were applied on a regular schedule throughout the growing season with irrigation applied when needed. Summaries of results are reported in this publication.

## RESULTS

**Bell Pepper** (Cullman). Seed were planted in the greenhouse at Auburn, March 26, and seedlings field transplanted May 21. Plants were spaced 2 feet apart in 44-inch rows. Four harvests were made beginning July 18 and ending August 28 with yields higher in 1974 than for the 2 previous years. Emerald Giant was the highest yielding variety, with Delaware Belle and Hybrid No. 19 producing the highest number of marketable fruits per plant, Table 1. Emerald Giant, California Wonder 300 and Yolo Select Pak produced larger pods than the other varieties and Early Bountiful produced the smallest. Several varieties turned red early but not before they had reached their mature fruit size. Eleven varieties produced fruit with 3 to 4 lobes; Pick-A-Peck fruit with 2 lobes; NCX 4007 had the longest pod and Midway

the shortest. Emerald Giant had fruits with the largest diameter but several varieties had fruits with a 2-inch diameter. Pod wall thickness of all varieties ranged from 5 to 7 mm.

**Broccoli** (Fairhope). Seed were planted in the greenhouse at Auburn August 15 and seedlings field transplanted September 30 with plants spaced 15 inches apart in 38-inch rows. Each variety was multi-harvested, Table 2, center heads being cut the first harvest and side heads cut later. Green Comet produced the highest total yield; Green Duke produced the highest yield of center heads, and its average head weight was the greatest; and Bravo and Green Comet were the earliest maturing varieties.

**Cabbage** (Auburn and Fairhope). Seed were planted January 10 for Auburn and August 15 for Fairhope and seedlings field transplanted February 28 at Auburn and September 30 at Fairhope. Plants were spaced 15 inches in 40-inch rows at Auburn and 15 inches in 38-inch rows at Fairhope. King Cole, Tastie, Blue Chip, and Green Boy produced the highest yields at Auburn, Table 3; King Cole produced the largest heads and Golden Acre the smallest, and Hercules and Prim Pak produced heads of most uniform size. Jet Pak was the earliest maturing variety and Headmaster the latest at Fairhope, Table 4. Rio Verde produced the highest yield of marketable heads; Green Boy the largest mean head weight; and Golden Acre the smallest head size. Golden Acre did not split as badly in the fall as in the spring. Head Start and Golden Acre were the earliest maturing varieties and Greenback the latest.

**Eggplant** (Cullman). Seed were planted in the greenhouse at Auburn March 26 and field transplanted May 21. Plants were spaced 2 feet apart in 5-foot rows. Six harvests were made beginning July

<sup>1</sup> Data presented in this publication are a true evaluation of each entry. Variety and company names are used for identification and does not imply endorsement of one over the other.

<sup>2</sup> Research Associate and Field Superintendent, Department of Horticulture.

<sup>3</sup> Seed of breeding lines are not available for planting until named and released.

TABLE 1. BELL PEPPER VARIETY TRIAL, CULLMAN, 1974<sup>1</sup>

Variety	Yield/acre	Marketable pods per plant	Pod weight	Fruit color <sup>2</sup>	Lobes <sup>3</sup>	Eye appeal <sup>4</sup>	Pod length	Pod diameter	Wall thickness
	<i>Cwt.</i>	<i>No.</i>	<i>Lb.</i>				<i>In.</i>	<i>In.</i>	<i>mm</i>
Emerald Giant	221	11.3	.33	DG	3-4	4.5	3.00	3.25	7
Delaware Belle	202	12.8	.27	LG	3-4	4.0	2.75	2.75	6
Hybrid No. 19	188	12.5	.25	G <sup>5</sup>	2-3	3.0	3.50	2.75	7
World Beater	175	11.5	.26	LG	3-4	3.0	3.75	2.25	5
Yolo Wonder L	172	9.2	.32	G	3	3.5	3.00	3.00	6
Canape	171	11.9	.24	DG <sup>5</sup>	2-3	2.5	3.50	2.00	5
Titan	168	8.5	.33	G	3-4	4.0	3.25	3.00	7
California Wonder 300	166	9.1	.31	DG	3-4	3.5	3.00	3.00	6
NCX 4008	165	10.1	.28	DG	3	3.0	3.75	2.50	6
Mercury	164	8.4	.33	DG	3-4	4.0	3.00	3.00	7
Yolo Select Pak	163	8.3	.31	DG	3-4	4.5	3.25	3.00	7
Pick-A-Peck	160	13.1	.21	G <sup>5</sup>	2	2.5	3.50	2.00	6
NCX 4007	157	11.3	.23	G	2-3	2.5	4.00	2.00	6
Midway	154	8.3	.31	G	3-4	3.0	2.50	3.00	6
Twilley's Big Pack	124	6.8	.31	G	3-4	4.0	3.00	3.00	7
Early Bountiful	119	10.5	.19	G <sup>5</sup>	2-3	2.5	3.00	3.25	6
California Wonder	109	6.3	.29	G	3-4	3.0	2.75	2.75	7
Miss Belle	102	5.6	.31	DG	3-4	4.0	3.00	2.75	6
NCX 4002	101	5.9	.29	G	3	3.0	3.00	3.00	7

<sup>1</sup> Soil test p = 720 (EH); k = 190 (H); pH = 5.6. 1 ton limestone applied per acre.

<sup>2</sup> LG = light green; G = green; DG = dark green.

<sup>3</sup> Numbers in this column occurred most often for each variety.

<sup>4</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

<sup>5</sup> Turns read early.

TABLE 2. FALL AND WINTER BROCCOLI VARIETY TRIAL, FAIRHOPE, 1974<sup>1</sup>

Variety	Center head <sup>2</sup>		Side heads <sup>3</sup>		Total marketable yield/acre	Season <sup>4</sup>	Harvest dates
	Yield/acre	Mean head weight	Yield/acre	Yield/plant			
	<i>Cwt.</i>	<i>Lb.</i>	<i>Cwt.</i>	<i>Lb.</i>	<i>Cwt.</i>		
Green Comet	44.07	.45	70.12	.71	114.19	E	11-22-74 : 1-28-75
Green Duke	53.41	.56	53.30	.56	106.17	M	12-6-74 : 1-28-75
Crusader	39.56	.43	50.00	.55	89.56	L	12-16-74 : 1-28-75
Bravo	45.61	.43	42.09	.40	87.70	E	11-22-74 : 1-28-75
Atlantic	34.29	.35	44.18	.45	78.47	M	12-6-74 : 1-28-75
Waltham 29	35.94	.41	39.12	.44	75.06	L	12-26-74 : 1-28-75

<sup>1</sup> Soil test p = 130 (high); k = 100 (medium); pH = 6.1.

<sup>2</sup> Heads were harvested when compact and before any yellow color was showing.

<sup>3</sup> Side heads were those cut after the center head had been harvested.

<sup>4</sup> E = early; M = mid-season; L = late.

TABLE 3. HYBRID CABBAGE VARIETY TRIAL, AUBURN, 1974<sup>1</sup>

Variety	Marketable yield/acre	Mean head weight	Uniformity of heads <sup>2</sup>	Growing days	Season <sup>3</sup>	Color <sup>4</sup>	Harvest	Remarks
	<i>Cwt.</i>	<i>Lb.</i>	<i>Lb.</i>	<i>No.</i>			<i>No.</i>	
King Cole	481.6	4.60	±.36	75	M	G	1	
Tastie	436.6	4.17	±.99	76	M	G	1	
Blue Chip	426.6	4.08	±.70	79	M	G	1	
Green Boy	422.6	4.04	±.52	80	M	BG	1	
Sanibel	395.2	3.78	±.83	76	M	BG	1	Some split heads
Rio Verde	389.6	3.72	±.70	80	M	BG	1	
Headmaster	377.4	3.61	±.56	86	L	BG	1	
Hercules	373.4	3.57	±.34	80	M	BG	1	
Market Topper	346.8	3.31	±.82	76	M	LG	1	
Jet Pak	341.4	3.26	±.65	70	E	DG	1	
Prime Pak	333.0	3.18	±.34	83	L	BG	1	
Round Dutch <sup>5</sup>	330.0	3.16	±.61	85	ML	G	3	
Copenhagen <sup>5</sup>	325.0	3.10	±.35	72	EM	LG	3	Some split heads
Market Prize	316.6	3.02	±.56	81	M	BG	1	
Stonehead	300.8	2.88	±.42	75	M	G	1	
Golden Acre <sup>5</sup>	243.4	2.33	±.44	70	EM	LG	3	Splits badly

<sup>1</sup> Soil test p = 550 (EH); k = 80 (M); pH = 5.2. 1 ton limestone applied per acre.

<sup>2</sup> Standard deviation.

<sup>3</sup> E = early; M = medium; L = late.

<sup>4</sup> G = green; BG = bluegreen; LG = light green; DG = dark green.

<sup>5</sup> Not a hybrid.

TABLE 4. FALL AND WINTER CABBAGE VARIETY TRIAL, FAIRHOPE, 1974<sup>1</sup>

Variety	Marketable yield/acre	Mean head weight	Growing days	Season <sup>2</sup>	Color <sup>3</sup>	Harvest	Harvest dates
	<i>Cwt.</i>	<i>Lb.</i>	<i>No.</i>				
Rio Verde	459.9	4.65	88	M-L	BG	2	12-26-74 : 1-15-75
Greenback <sup>4</sup>	417.2	4.22	108	L	G	1	1-15-75
Sanibel	371.1	3.90	88	M-L	BC	2	12-26-74 : 1-15-75
Hercules	362.1	4.12	92	M	BG	1	12-30-74
Green Boy	355.2	5.70	92	M-L	BG	2	12-30-74 : 1-27-75
Express	345.4	3.77	88	M	G	1	12-26-74
Jackpot	344.6	4.09	88	M	G	1	12-26-74
Headmaster	318.3	3.62	92	M	BG	1	12-30-74
Stonehead	313.2	3.56	92	M	G	1	12-30-74
King Cole	308.2	4.67	92	M	G	1	12-30-74
Head Start	289.2	2.63	59	E	G	1	11-27-74
Banner	284.0	3.10	88	M	G	1	12-26-74
Blue Chip	281.5	3.84	88	M-L	G	2	12-26-74 : 1-27-75
Jet Pak	268.3	3.33	78	E	DG	1	12-16-74
Golden Acre <sup>4</sup>	223.9	2.18	59	E	LG	1	11-27-74
Tastie	209.7	3.18	88	M	G	1	12-26-74

<sup>1</sup> Soil test p = 130 (high); k = 100 (medium); pH = 6.1.

<sup>2</sup> E = early; M = mid-season; L = late.

<sup>3</sup> G = green; BG = blue green; LG = light green; DG = dark green.

<sup>4</sup> Not a hybrid.

16 and ending September 30 with Black Oval Hybrid producing the highest yield of marketable fruits, Table 5. Jersey King Hybrid and Peerless Hybrid are similar in most characteristics and both produced excellent yields. Black Magic Hybrid had the largest mean fruit size, Early Beauty Hybrid and Long Purple had less spines, and other varieties produced more spines in varying degrees. Early Beauty Hybrid could be considered ornamental since it has a heavily pigmented purple plant and fruit varying in shape from near round to elongated.

**Slicing Cucumbers** (Auburn and Cullman). Seed were planted May 21 at Cullman and August 20 at Auburn with plants spaced 6 inches apart in 40-inch rows at Auburn and 6 inches apart in 44-inch rows at Cullman. The spring crop of all varieties at Cullman produced excellent yields, Table 6, GS 1, a gynoeceious hybrid from North Carolina State University,

produced the highest yield of marketable fruit. Two varieties, Poinsett and Victory, were grown on a commercially available nylon mesh trellis with yields doubled those of the same varieties on the ground. At Auburn, low temperatures reduced yields of all varieties. Six harvests were made beginning October 9 and ending October 24 and Sprint-S was the highest yielding variety. Sweet Slice is a nonbitter type cucumber, considerably longer than the other varieties and tends to grow irregular in shape. GS-1 and Sweet Slice were early producing varieties.

**Pickling Cucumbers** (Auburn). Two plantings were made, April 19 and August 20. Plants were spaced 6 inches apart in 40-inch rows. Nine harvests were made for the spring crop and five for the fall crop. Three breeding lines had the highest yields for the spring crop, Table 7; Score was the highest yielding named variety; and two lines have been named for

TABLE 5. EGGPLANT VARIETY TRIAL, CULLMAN, 1974<sup>1</sup>

Variety	Yield/acre	Marketable fruit per plant	Fruit size	Fruit color <sup>2</sup>	Eye appeal <sup>3</sup>	Shape <sup>4</sup>	Spines <sup>5</sup>
	<i>Cwt.</i>	<i>No.</i>	<i>Lb.</i>				
Black Oval Hybrid	490	11	1.05	DP	3.5	O	3.0
Midnite Hybrid	454	9	1.15	B	3.0	O	2.0
Jersey King Hybrid	442	12	.87	DP	4.5	E	3.5
Peerless Hybrid	432	11	.87	DP	4.5	E	2.0
Mission Bell	413	10	.95	P	3.0	O	2.0
Hybrid No. 29	395	8	1.16	P	2.5	R	3.5
Florida Highbush	392	9	1.03	PB	3.0	O	3.5
Black Magic Hybrid	384	7	1.19	P	2.5	R	3.0
Black Beauty	360	8	1.04	P	2.5	R	2.0
Florida Market	344	8	.97	DP	3.5	O	3.0
Blacknite Hybrid	318	7	.73	B	4.5	E	2.0
Early Beauty Hybrid	300	12	.56	P	2.5	O	5.0
Pompano Pride	262	6	.99	DP	3.5	E	2.0
Long Purple	157	6	.62	LP	2.5	E	4.5

<sup>1</sup> Soil test p = 320 (VH); k = 150 (H); pH = 6.1.

<sup>2</sup> P = purple; B = very dark purple that could be considered black; DP = dark purple; PB = purple to black; LP = light purple.

<sup>3</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

<sup>4</sup> R = round; E = elongated; O = oval.

<sup>5</sup> 1 = many; 5 = few to none.

TABLE 6. SLICING CUCUMBER VARIETY TRIAL, AUBURN AND CULLMAN, 1974<sup>1</sup>

Variety	Marketable yield/acre <sup>2</sup>	Fruit size	Length	Color <sup>3</sup>	Shape <sup>3</sup>	Vine vigor <sup>3</sup>	Uniformity <sup>3</sup>	Eye appeal <sup>3</sup>	Season
	Bu.	Lb.	In.						
Spring, Cullman									
GS-1 (NCSU)	872	.40	6.50	5	3	4	3	3.0	Early
3910 (Ferry Morse)	846	.38	7.90	5	4	4	3	2.5	Mid-season
EX 840 (NK)	831	.35	7.30	4	4	4	3	3.0	Early
233-136-71 (Peto)	806	.37	7.60	3	4	4	3	2.5	Mid-season
3909 (Ferry Morse)	756	.35	6.80	4	3	4	4	2.5	Mid-season
Cherokee 7 (NK)	711	.31	6.60	5	4	2	3	3.0	Early
Sprint-S (Asgrow)	683	.33	6.30	3	4	4	4	2.5	Early
Victory (Peto)	666	.38	7.10	5	4	4	4	3.5	Mid-season
Debonaire (Niagara)	649	.37	6.50	3	3	4	3	3.0	Mid-season
Poinsett (Asgrow)	501	.30	6.00	4	4	4	4	3.0	Late
High Mark II (Asgrow)	497	.34	6.50	3	3	4	3	3.0	Mid-season
SC-1 (Clemson)	413	.36	7.50	3	3	4	4	2.5	Mid-season
Poinsett Trellised <sup>4</sup>	1141	.29	---	---	---	---	---	---	---
Victory Trellised <sup>4</sup>	1343	.33	---	---	---	---	---	---	---
Fall, Auburn									
Sprint-S (Asgrow)	357	.42	6.47	4	4	5	2	3.0	Early
3909 (Ferry Morse)	303	.40	6.67	4	4	5	3	3.0	Late
GS-1 (NCSU)	283	.38	6.00	4	3	4	3	4.0	Early
Sweet Slice (Peto)	275	.49	8.21	5	2	4	2	2.5	Very early
EX 840 (NK)	274	.42	6.54	4	3	5	3	3.0	Early
Cherokee 7 (NK)	264	.39	6.09	3	4	5	2	3.0	Mid-season
Debonaire (Niagara)	256	.41	6.81	4	4	4	3	3.5	Mid-season
Victory (Peto)	253	.39	6.12	4	4	5	5	4.0	Mid-season
233-176-71 (Peto)	246	.41	6.64	4	3	5	3	3.0	Late
SC-1 (Clemson)	244	.40	6.40	2	3	4	2	2.5	Mid-season
3910 (Ferry Morse)	240	.38	6.71	3	3	5	2	3.0	Late
Saticoy	236	.40	6.69	5	4	5	4	3.0	Late
High Mark II	220	.38	6.51	4	4	5	3	3.5	Mid-season
Early Marketer	214	.44	6.77	3	3	5	3	2.5	Late
Poinsett	157	.36	5.96	4	4	5	3	3.5	Late
Marketer	145	.38	6.59	3	3	5	3	2.5	Late
Early Sure Crop	118	.45	6.77	3	3	5	3	2.5	Mid-season
Sure Crop	80	.43	6.47	3	3	4	3	2.5	Late

<sup>1</sup> Soil test Auburn: p = 200 (high); k = 80 (medium); pH = 5.6. 1 ton limestone applied per acre. Cullman: p = 470 (EH); k = 140 (H); pH = 6.0.

<sup>2</sup> Bushel = 50 pounds.

<sup>3</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

<sup>4</sup> Trellis material was a commercial nylon net hung between a bottom and top wire approximately 5 to 6 feet apart. Vines were trained on to the trellis and required several corrective treatments to get established.

seed increase, 74-G18 (Calypso), a gynocious hybrid, and MH-28 (Sampson) a monoecious hybrid. Both lines were developed by Dr. R. L. Lower of North Carolina State University and have performed well in Alabama in field trials and in commercial brine test. Yields reported for the fall crop may not represent actual performance of these entries. Temperatures in the mid-30's developed during the first 2 weeks of October and only three entries produced over 100 cwt. Slow growth is indicated by the low yields of No. 4 size cucumbers.

**Potatoes** (Crossville). Seed potatoes, obtained from the USDA in Maine, Maryland, Wisconsin, and North Dakota, were brought to Auburn and stored at 40° F. until planting time. Seed pieces were cut to approximately 1½ ounces each, treated for rot control, presprouted at 55° F. for approximately 2 weeks, and planted on March 12 with 12-inch spacing in 42-inch rows. Plots were harvested July 26 with excellent yields produced by many of the entries, Table 8. B7139-4 and B6987-56 were the two highest yielding lines. B6987-56 has performed well in Alabama

for the past several years and will be named by the USDA for seed increase. Frito-Lay 723 was the highest yielding named variety. Kennebec and Wischip (Wis. 623) produced good yields of high quality chip and fresh market potatoes. The three lowest yielding entries also had a low percent stand of plants at harvest. Either poor seed production and/or handling techniques could account for the high percent stand loss. Red LaSoda and Lo 71-82 also had low stand counts at harvest.

**Snap Beans** (Auburn). Seed were planted April 18 and August 21 for the spring and fall crop respectively spaced 2 inches apart in 40-inch rows. Harvest dates varied by varieties with varieties harvested once over to simulate machine harvesting. Yields were generally higher in the spring than fall, Table 9. E2203 produced the highest yield for the spring replicated trial and XP113-70-409 produced the highest yield for both spring and fall observational trials. Powdery mildew was a serious problem in the fall, however, Slenderette and XI-68-2990 indicated a high degree of resistance to this disease. GP 66-937-A, Exp. 140-2324, Tender Blue, BBL 68-115 and

TABLE 7. PICKLING CUCUMBER VARIETY TRIALS, AUBURN, 1974<sup>1</sup>

Variety	Marketable yield per acre					Harvest season <sup>b</sup>	Color <sup>d</sup>	Fruit shape	Spine color <sup>e</sup>	Vine vigor	Carpel separation <sup>g</sup>	
	Sizes <sup>a</sup>										No. 3's	No. 4's
	No. 1	No. 2	No. 3	No. 4	Total							
					Cwt.							
<b>Spring</b>												
72-14-17 (AR)	25.05	126.03	162.06	40.16	353.30	L	DG	Fair	Wh	Excellent	2	0
NCX 5001 (Niagara)	16.29	89.40	216.14	28.32	350.15	E	LG	Fair	Wh	Excellent	—	—
PSX 173 (Peto)	25.64	117.79	170.57	30.22	344.22	M	LG	Good	Wh	Excellent	3	13
Score (Asgrow)	27.60	123.09	159.58	25.18	335.44	M	G	Good	Wh	Excellent	1	0
XP 816 (NK)	25.70	122.50	152.84	27.41	328.45	M	LG	Good	Wh	Excellent	0	—
72-57 (AR)	25.38	104.71	154.15	31.79	316.03	L	DG	Fair	Wh	Excellent	3	25
G541C2 (JH)	19.88	101.63	151.60	21.26	294.37	E	LG	Good	Wh	Excellent	2	20
XP 1097 (AS)	27.08	122.95	128.91	5.10	284.04	M	DG	Excellent	Wh	Good	5	—
Explorer (AS)	19.03	93.79	137.02	24.46	274.30	M	G	Excellent	Wh	Excellent	1	0
Calypso	26.62	100.46	134.79	8.77	270.64	E	DG	Excellent	Wh	Excellent	0	0
NCX 5002 (Niagara)	15.44	93.39	140.55	13.87	263.25	E	G	Good	Wh	Good	—	—
74-G21 (NCSU)	25.51	110.92	110.49	9.55	256.47	M	DG	Excellent	Wh	Excellent	5	0
Triple Cross (TAMU)	20.54	98.56	120.93	15.24	255.27	E	G	Fair	Wh	Excellent	2	0
Sampson	19.56	99.61	115.70	15.89	250.76	L	G	Excellent	Wh	Good	1	0
Carolina (AS)	19.16	79.92	109.55	16.42	225.05	E	G	Excellent	Wh	Good	1	0
FX 3904 (FM)	15.31	115.96	74.75	5.23	211.25	E	LG	Good	Wh	Good	4	0
C54185 (JH)	13.08	73.51	108.76	12.36	207.71	E	G	Good	Wh	Good	2	0
Sumter (AS)	17.07	73.71	96.40	10.07	197.25	L	G	Excellent	Wh	Excellent	3	0
C 183 (Castle)	19.03	80.05	91.56	1.70	192.34	M	G	Fair	Wh	Good	0	—
Green Spear (NK)	20.01	90.32	69.59	3.93	183.85	M	LG	Fair	Wh	Good	2	—
HJC2 (JH)	18.64	60.63	69.65	9.68	158.60	E	G	Fair	Wh	Good	0	0
FX 3906 (FM)	7.25	54.48	81.88	14.98	158.59	L	LG	Fair	Wh	Good	0	33
XP 820 (NK)	4.12	55.40	56.77	2.75	119.04	E	G	Poor	Wh	Good	0	—
72-19-14 (AR)	7.79	43.62	50.23	8.31	109.95	L	G	Good	Wh	Good	2	0
<b>Fall</b>												
FX 3906	19.23	80.70	25.11	1.18	126.22	E	LG	Fair	Wh	Excellent	—	—
Green Spear	19.16	66.05	21.84	1.64	108.69	E	G	Good	Wh	Excellent	—	—
FX 3904	20.60	64.55	14.26	5.23	104.64	E	G	Fair	Wh	Excellent	—	—
HJC2	21.84	55.33	19.29	1.64	98.10	E	LG	Good	Wh	Good	—	—
Calypso	26.68	57.03	12.75	.92	97.38	M	DG	Good	Wh	Excellent	—	—
C 183	14.06	51.86	27.34	3.60	96.86	E	G	Fair	Wh	Good	—	—
74-G21	23.15	51.67	15.11	6.41	96.34	E	DG	Good	Wh	Excellent	—	—
G541C2	19.03	46.63	21.52	1.44	88.35	E	DG	Good	Wh	Good	—	—
Triple Cross	20.34	53.96	9.81	0	84.11	M	DG	Fair	Wh	Excellent	—	—
Carolina	20.80	42.58	15.11	2.03	80.52	M	G	Good	Wh	Excellent	—	—
Explorer	18.26	42.18	17.33	1.57	79.34	L	LG	Fair	Wh	Excellent	—	—
Sampson	20.21	45.00	11.97	0	77.18	L	G	Fair	Wh	Excellent	—	—
XP 1097	27.47	42.21	3.86	0	75.54	M	DG	Fair	Wh	Excellent	—	—
72-19-14	12.69	41.14	13.41	0	67.24	L	G	Excellent	Wh	Good	—	—
Score	17.00	40.48	9.22	0	66.70	L	LG	Fair	Wh	Excellent	—	—
72-57	13.15	30.80	17.99	1.37	63.31	L	DG	Excellent	Wh	Good	—	—
XP 820 (NK)	14.39	36.75	11.64	0	62.78	M	DG	Fair	Wh	Fair	—	—
PSX 173	12.62	36.04	9.55	0	58.21	M	G	Fair	Wh	Good	—	—
C54185	10.01	36.10	9.55	0	55.66	E	G	Good	Wh	Good	—	—
Sumter	14.52	25.96	12.36	0	52.84	L	DG	Excellent	Wh	Excellent	—	—
NCX 5002	2.12	13.68	31.28	3.34	50.42	E	G	Good	Wh	Good	—	—
NCX 5001	1.84	11.06	29.40	3.02	45.32	E	LG	Fair	Wh	Excellent	—	—
72-14-17	10.27	22.30	10.66	0	43.23	L	G	Fair	Wh	Good	—	—
XP 816	7.52	27.47	5.04	—	40.03	M	DG	Fair	Wh	Excellent	—	—

<sup>1</sup> Spring: Soil test p = 200 (high); k = 80 (medium); pH = 5.6. 1 ton limestone applied per acre.

Fall: Soil test p = 200 (high); k = 80 (medium); pH = 5.6. 1 ton limestone applied per acre.

<sup>2</sup> No. 1 size ranged up to 1<sup>1</sup>/<sub>8</sub> inch in diameter; No. 2 size ranged from 1<sup>1</sup>/<sub>8</sub> to 1<sup>1</sup>/<sub>2</sub> inches in diameter; No. 3 grade ranged from 1<sup>1</sup>/<sub>2</sub> to 2 inches in diameter; No. 4 grade ranged from 2 to 2<sup>1</sup>/<sub>4</sub> inches in diameter.

<sup>3</sup> E = early; M = mid-season; L = late.

<sup>4</sup> G = green; LG = light green; DG = dark green.

<sup>5</sup> Wh = white.

<sup>6</sup> Carpel separation was based on the percent of fruits cut that had open or air spaces in the middle.

E4207 had a very high degree of tolerance for this disease.

**Sweet Corn (Fairhope and Cullman).** Seed were planted April 9 at Fairhope and May 3 at Cullman spaced approximately 6 inches apart in 38-inch rows at Fairhope and approximately 9 inches apart with 2 plants per hill in 44-inch rows at Cullman. At Fairhope good yields were produced for most varieties,

Table 10. Asgrow XP362 produced the highest yield of marketable ears; Ear weight was greatest for Triumph II; and Asgrow XP 362 and Golden Security were rated best for tip cover. Apache (Asgrow 358) has performed well for the past 3 years in Alabama. Comet, Golden Queen, and Silver Queen were rated easiest to harvest and Robson XP185-A was rated the most difficult, Table 11.

TABLE 8. POTATO VARIETY TRIAL, CROSSVILLE, 1974<sup>1</sup>

Variety	Marketable yield per acre			Plant stand at harvest	Eye depth <sup>3</sup>	Eye size <sup>4</sup>	Skin color <sup>5</sup>	Shape	Eye appeal <sup>6</sup>
	Total	Size A <sup>2</sup>	Size B						
	Cwt.	Cwt.	Cwt.	Pct.					
B7139-4	354.70	338.36	16.34	100	S	S	Wh-SR	Long	4.0
B6987-56	352.37	336.81	15.56	98	M	M	Wh-SR	Round	3.5
Frito-Lay 723	322.81	308.81	14.00	94	D	L	Wh	Round	2.5
B6567-12	319.96	305.69	14.00	99	S	S	Wh-SR	Long	4.0
B7629-3	315.03	283.14	31.89	94	S	S	Wh-SR	Long	4.0
Wis. 718	310.36	285.47	24.89	95	S	S	Wh	Round	3.0
Kennebec	309.59	290.14	19.45	90	M	M	Wh	R-long	3.5
Wischip	304.14	271.47	32.67	96	S	S	Wh	Round	4.0
B7152-14	283.92	256.69	27.23	98	M	D	Wh-SR	Round	4.0
Wis. 707	271.47	244.24	27.23	100	M	L	Wh-SR	Round	4.0
Frito-Lay 750	270.69	237.24	33.45	96	S	S	Wh-SR	Round	2.5
Raratan	268.36	239.58	28.78	98	M	S	Wh-SR	Round	4.5
Wis. 729R	267.58	231.80	35.78	96	M	L	Red	Round	3.5
Frito-Lay 162	256.69	232.58	24.11	98	S	M	Wh-SR	Flat-long	4.0
B7148-1	252.03	229.47	22.56	94	S	S	Wh-SR	Long	4.0
La Rouge	251.25	217.80	33.45	98	M	M	Red	Round	4.0
B7169-7	248.14	221.69	26.45	99	M	L	Pink	Round	3.5
B7134-3	239.58	218.58	21.00	98	S	S	Wh	Long	4.0
B7694-1	238.02	217.02	21.00	99	S	S	Wh-SR	Long	4.0
Wis. 703	234.14	217.02	17.12	98	M	M	Wh-SR	R-flat	4.0
Frito-Lay 630	231.80	213.13	18.67	81	M	M	Wh-SR	Round	3.5
Frito-Lay 442	217.80	192.13	25.67	94	S	S	Wh	Long	4.0
Seminole	213.13	199.13	14.00	100	M	M	Wh-SR	Round	4.5
Lo 71-82	206.14	192.13	14.00	69	S	S	Wh-SR	Long	3.0
Frito-Lay 657	205.35	195.24	10.11	80	M	M	Wh-SR	Round	3.5
B7603-7	198.35	173.46	24.89	95	S	M	Pink	Round	3.5
B7595-3	195.24	173.46	21.78	95	M	M	Pink	Round	3.0
B7652-3	189.41	181.24	8.17	85	M	M	Red	Round	3.0
Red La Soda	187.46	177.35	10.11	65	D	L	Red	Round	4.0
Hi-Plains	181.24	152.46	28.78	73	S	S	Wh	R-flat	3.0
B7190-2	180.85	173.46	7.39	95	M	M	Wh-SR	Round	4.0
Norchip	170.34	150.13	20.21	84	D	L	Wh-SR	Round	2.5
B7595-2	155.57	129.12	26.45	91	S	S	Pink	Round	3.5
Superior	117.46	108.90	8.56	69	M	M	Wh-SR	Round	4.5
La Chipper	88.67	79.34	9.33	40	D	L	Wh	Round	2.5
Lo 71-110	53.67	49.00	4.67	26	S	S	Wh	R-flat	3.5

<sup>1</sup> Soil test p = 330 (very high); k = 100 (medium); pH = 5.1. ½ ton limestone applied per acre.

<sup>2</sup> Size A = potatoes with 1 1/8 inches diameter and larger. Size B = potatoes with 1 1/2 to 1 3/8 inches diameter.

<sup>3</sup> S = shallow; M = medium; D = deep.

<sup>4</sup> S = small; M = medium L = large.

<sup>5</sup> Wh = white; SR = some russet.

<sup>6</sup> 5 = excellent; 4 = good; 3 = poor; 2 = fair; 1 = very poor.

At Cullman, Keystone Evergreen Hybrid was the highest yielding variety, Table 12. Golden Security, Apache, and Sweet Tennessee also produced good yields. NK XP-1791 had the best tip cover; Tender-sweet had the highest rating for ear filling, a very important characteristic for commercial sweet corn production; and Bi-Color Silver Queen and Silver Queen were very similar. Silver Queen had a better tip cover than Bi-Color Silver Queen; LaSeCo G-80 had the largest ear size but a very low rating for ear filling; and Rogers XP70-2428 and Fanfare were rated the most difficult to harvest, Table 13. Asgrow XP1343A was rated the least difficult variety to harvest and Keystone Evergreen Hybrid and Bi-Color Silver Queen had the longest season. Asgrow XP1343A, Rogers XP72-1651, Rogers XP72-1707, and Fanfare were the earliest maturing varieties.

**Sweet Potatoes** (Auburn, Clanton, and Cullman). Varieties and breeding lines were obtained from breeders in February and stored at 55° F. until time for presprouting. Seed were presprouted at 85° F. for 2 weeks before bedding; treated with 8 ounces

of Mertect 340-F in 7.5 gallons of water for 15 to 20 seconds and placed in electric heated beds. There was a shortage of seed of some varieties therefore, plant production was not sufficient for an adequate number of plants for planting in all locations.

Plants were set at Auburn May 14 and harvested October 24, at Clanton May 9 and harvested October 16, and at Cullman May 31 and harvested October 8. Plants were spaced 12 inches apart in 44-inch rows at all locations.

At Auburn Red Jewel was the highest yielding variety, Table 14. Jewel, C11-4919, and Ti 1885 also produced good yields. Red Jewel, Jewel, Ti 1885, NC-320, and NC-289 produced the highest percent of US No. 1 roots. Jasper (L9-190) was named this year by the Louisiana Agricultural Experiment Station for seed increase. At Auburn, this line produced a rose to copper skin and a high yield of well shaped roots. It has performed well for the past 3 years in Alabama and stored as well as Centennial.

At Clanton, Jasper was the highest yielding variety; L7-182 and Centennial produced well; Red

TABLE 9. SNAP BEAN VARIETY TRIAL, AUBURN, 1974<sup>1</sup>

Variety	Market-able yield/acre	Growing days	Color <sup>2</sup>	Shape	Straight-ness <sup>3</sup>	Bean length	Sieve sizes <sup>4</sup>				
							1	2	3	4	5
	Bu.	No.				In.	Pct.	Pct.	Pct.	Pct.	Pct.
<b>Spring Replicated</b>											
E 2203	268	52	G	Heart	SC	5.50	8	12	10	50	20
XI-68-2990	224	54	DG	Heart	SC	5.00	10	10	11	51	18
XP 140-2324	216	53	LG	Round	S	5.25	14	9	12	46	19
Slenderette	202	54	G	Heart	SC	4.75	7	12	13	47	21
XP-116-137	184	55	LG	Oval	SC	5.25	7	8	13	50	22
GP 66-937-A	170	56	DG	Heart	SC	4.75	16	10	12	42	20
Astro	165	54	G	Oval	S	5.00	11	11	13	48	17
BBL Supreme	158	56	G	Heart	SC	5.00	8	13	12	45	22
<b>Observational</b>											
XP 113-70-409	384	53	LG	Round	SC	5.50	8	10	13	48	17
Amigo	377	52	LG	Flat	VC	6.50	0	0	0	0	100
White Seeded Provider	313	53	G	Oval	SC	5.50	10	7	15	48	20
E 4207	306	53	G	Oval	SC	5.50	6	13	13	45	23
72 AI-4	286	55	DG	Heart	VC	6.00	13	8	12	50	17
XP B45	283	53	LG	Heart	SC	4.75	7	8	13	48	24
BBL 68-115	276	56	G	Heart	SC	5.25	7	16	11	51	16
XP B51	276	56	G	Round	SC	6.00	9	10	6	49	26
XP B47	275	57	G	Round	SC	5.75	5	12	13	40	30
B4000-3	263	56	G	Heart	SC	5.50	14	12	18	43	13
Galaslim	261	56	LG	Round	VC	5.00	12	14	14	47	13
H 63-2-4	256	56	G	Heart	SC	5.50	6	14	12	41	27
E 2202	254	53	G	Round	CTD	6.00	10	7	9	48	27
GP 711-5	251	57	G	Round	SC	5.00	9	12	12	47	20
XP B38	250	55	G	Round	SC	5.25	6	16	11	54	13
XP B37	233	55	LG	Round	SC	5.50	12	13	13	42	20
GP 72-112	217	56	G	Round	SC	5.00	8	8	14	45	25
XP B46	217	56	DG	Round	SC	5.50	6	8	10	42	34
Early Gallatin	215	54	DG	Round	SC	5.00	12	8	8	57	15
H 199-2	201	56	G	Heart	SC	5.75	12	14	17	37	20
Cumberland	184	58	G	Round	SC	5.50	12	13	23	33	19
Tender Blue	173	57	LG	Round	SC	5.50	11	12	10	54	13
Ozark	165	54	G	Round	SC	5.25	13	6	11	54	16
GP 65-71A	157	55	DG	Round	VC	5.00	7	8	15	52	18
<b>Fall Replicated</b>											
XP 140-2347	241	56	LG	Round	SC	5.25	8	9	9	55	19
BBL Supreme	194	58	G	Round	SC	4.50	16	19	15	27	23
E 2203	191	56	G	Heart	VC	5.00	15	10	20	40	15
Astro	174	56	G	Round	SC	4.75	15	13	15	48	9
GP 66 937-A	169	58	DG	Round	SC	5.25	16	10	16	45	13
XP 116-137	150	59	LG	Oval	SC	5.50	20	18	18	38	6
Slenderette	115	59	G	Round	SC	4.75	11	19	21	45	4
XI-68-2990	106	58	DG	Round	SC	4.25	10	18	13	53	6
<b>Observational</b>											
XP 113-70-409	268	54	LG	Heart	VC	4.50	8	8	15	46	23
GP 711-5	241	56	LG	Heart	SC	4.50	5	10	18	57	10
72AI-4	236	54	G	Round	CTD	5.50	8	13	13	36	30
Amigo	210	53	G	Flat	VC	6.00	5	3	10	22	60
White Seeded Provider	199	56	G	Round	VC	5.25	10	13	8	51	18
XP B45	191	56	G	Round	SC	4.75	8	10	10	50	20
B4000-3	190	55	DG	Round	SC	5.00	10	18	15	42	15
Early Gallatin	185	56	G	Round	VC	4.75	8	13	18	53	8
E 2202	184	56	G	Heart	CTD	5.25	9	10	18	49	15
Galaslim	183	54	DG	Oval	VC	4.50	0	13	20	44	23
E 4207	180	55	G	Round	SC	5.25	18	8	13	41	20
XP B51	171	56	G	Round	SC	5.00	18	10	18	36	18
XP B37	164	59	G	Heart	VC	4.75	18	18	13	38	13
BBL 68-115	158	59	G	Heart	CTD	4.75	13	18	15	36	8
GP 72-112	148	58	G	Round	CTD	4.75	13	15	18	46	8
XP B38	144	56	G	Round	VC	5.00	10	10	13	54	13
XP B46	144	58	G	Round	CTD	5.00	18	15	13	44	10
XP B47	138	57	G	Heart	SC	5.00	8	23	20	36	13
Ozark	110	59	G	Round	SC	5.50	23	13	15	40	8
Tender Blue	101	59	G	Round	SC	5.00	25	13	13	39	10
H 63-2-4	96	56	G	Heart	SC	5.00	15	13	18	44	10
Cumberland	95	56	G	Round	VC	5.00	13	13	15	44	15
GP 65-71A	94	56	G	Heart	VC	5.00	10	13	15	52	10
H 199-2	65	56	G	Round	CTD	5.50	10	13	18	49	10

<sup>1</sup> Spring: Soil test p = 200 (high); k = 80 (medium); pH = 5.6. 1 ton limestone applied per acre.

Fall: Soil test p = 200 (high); k = 80 (medium); pH = 5.6. 1 ton limestone applied per acre.

<sup>2</sup> G = green; LG = light green; DG = dark green.

<sup>3</sup> S = straight; SC = slightly curved; VC = very curved; CTD = curved in two directions.

<sup>4</sup> Sieve size was determined from a 100 pod sample taken at random from the four replications. Sieve denotes canning size grades with size 1 having the smaller diameter and 5 having the larger.

TABLE 10. SWEET CORN VARIETY TRIAL, FAIRHOPE, 1974<sup>1</sup>

Variety	Ears per acre	Ear weight	Color <sup>a</sup>	Kernel rows	Ear length	Ear diameter	Cob diameter	Row shape <sup>b</sup>	Ear set height	Tip cover <sup>c</sup>	Ear filling <sup>c</sup>	Eye appeal <sup>c</sup>
	Doz.	Lb.		No.	In.	In.	In.		In.			
Asgrow XP 362	2,448	.59	Y	16-18	7.75	1.81	1.06	S	24	5.00	3.25	3.75
Golden Security	2,410	.58	Y	14-16	7.44	1.78	.90	S	25	5.00	3.25	3.75
Seneca Feather Hybrid	2,410	.56	Y	14-16	7.62	1.78	.93	S	22	4.37	4.00	3.00
Rogers XP 70-2428	2,333	.52	Y	16	8.00	1.69	.81	SC	20	2.62	3.87	3.87
Asgrow XP 1343A	2,257	.43	Y	14	6.87	1.75	.87	SC	20	2.87	2.50	2.37
Goldenrod	2,222	.63	Y	16	9.19	1.75	1.00	S	32	4.25	3.75	3.75
Apache	2,219	.50	Y	16	7.25	1.69	.84	SC	24	4.75	4.50	4.00
NK-XP 1791	2,219	.62	Y	16-18	7.69	1.97	1.09	S	20	4.75	2.62	3.62
Triumphant II	2,142	.65	Y	16-18	8.00	1.81	1.06	S	23	3.50	3.00	3.37
Calumet	2,104	.53	Y	14-16	8.44	1.56	.65	S	25	4.37	3.87	3.62
Comet	2,104	.54	Wh	14-16	7.69	1.75	.93	S	25	3.50	3.12	3.62
Commander	2,104	.59	Y	20	8.12	1.74	.81	SC	28	3.50	3.50	4.00
Merit	2,104	.59	Y	16-18	8.25	1.94	.81	SC	32	3.50	3.75	3.37
Capitan	2,066	.53	Y	14-16	8.31	1.56	.69	S	30	4.12	3.00	3.00
Wintergreen	2,066	.58	Y	14-16	7.56	1.75	.97	S	21	4.25	4.50	3.62
Buttersweet	2,027	.54	Y	16-18	7.87	1.78	.78	S	27	3.37	2.87	3.37
Golden Queen	2,027	.63	Y	14-16	7.44	1.75	.93	S	28	4.62	3.00	3.00
LaSeCo XP 301Y	2,027	.53	Y	16	8.06	1.75	.78	S	25	2.62	2.75	3.50
Seneca Scout Hybrid	2,027	.48	Y	16-18	7.25	1.62	.69	SC	24	5.00	4.00	3.25
Tendersweet	2,027	.59	Y	14-16	7.87	1.53	.87	SC	24	4.75	4.50	2.87
Silver Queen	1,989	.54	Wh	16-18	7.87	1.78	.78	S	28	4.50	2.87	3.37
Fanfare	1,951	.51	Y	14-16	7.62	1.87	.90	SC	17	3.00	2.62	2.00
Robson XP 185A	1,874	.59	Y	16	7.94	1.75	.90	SC	25	3.75	3.75	3.06
Sweet Tennessee	1,798	.54	Y	16	7.81	1.72	.75	S	30	4.12	3.62	3.62
Seneca Chief	1,760	.53	Y	12-14	7.75	1.62	.78	S	16	4.25	3.00	3.37

<sup>1</sup> Soil test p = 130 (high); k = 100 (medium); pH = 6.1.

<sup>2</sup> Y = yellow; Wh = white.

<sup>3</sup> S = straight; SC = slightly curved.

<sup>4</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

Jewel and Jewel produced medium yields, and NC-311 produced the highest percent of US No. 1 roots.

Yields at Cullman were generally better than at Auburn or Clanton, six varieties produced over 600 bushels per acre. Red Jewel was one of the highest yielding varieties and the five top yielding varieties also produced the highest percent of US No. 1 roots.

Fresh Market Tomatoes (Fairhope and Cullman). Seed were planted in the greenhouse at Auburn March 5 and April 4 for Fairhope and Cullman respectively and plants were field transplanted at Fairhope April 12. Plants were spaced 15 inches apart in 5-foot rows and each plant pruned to a 2-leader system. Thirteen harvests were made beginning June 14 and ending August 2, Table 15 with fruits harvested at pink and red ripe maturity. Better Boy VFN and AU-12A (a breeding line from Dr. Walter Greenleaf) produced 748 and 700 cwt. respectively. Monte Carlo VFN and Terrific VFN also produced good yields of marketable tomatoes. Better Boy VFN, Monte Carlo VFN, and Terrific VFN produced a larger yield of 5 x 6 fruit than AU-12A. Sunburst and Traveler (a pink colored variety) produced the lowest amount of culls and Terrific VFN produced the highest amount. Creole, Floradel, Homestead 61, Homestead 500, and Homestead 24 produced the lowest percent of cracked fruits of the total culls that they produced. Wonder Boy VF and Saturn in the observational trial, produced the highest yields of marketable fruit. Saturn and Venus are resistant to Southern Bacterial Wilt and these two varieties

should grow well in gardens where this disease is a problem. Saturn is somewhat larger fruited than Venus, however, Saturn did produce a high yield of culls.

TABLE 11. PLANT CHARACTERISTICS OF SWEET CORN VARIETIES, FAIRHOPE, 1974<sup>1</sup>

Varieties	Plant height	Ease of snapping <sup>2</sup>	Shank length	Flag leaves <sup>3</sup>	Growing days
	In.		In.		No.
Asgrow XP 362	82	3.50	2.37	3.12	72
Golden Security	91	2.75	2.62	3.87	73
Seneca Feather Hybrid	77	2.75	2.62	3.87	71
Rogers XP 70-2428	78	2.25	2.75	4.00	69
Asgrow XP 1343A	71	3.50	4.00	2.25	69
Goldenrod	100	3.00	2.62	4.75	72
Apache	91	2.75	3.62	3.37	69
NK-XP 1791	82	3.50	2.75	4.50	71
Triumphant II	87	3.00	3.25	3.75	72
Calumet	96	2.75	2.37	4.75	69
Comet	82	4.50	3.12	4.00	72
Commander	89	2.50	.475	5.00	69
Merit	91	2.87	3.50	3.37	69
Capitan	93	3.00	4.17	2.50	69
Wintergreen	81	2.50	2.12	3.62	72
Buttersweet	90	2.50	3.75	4.25	69
Golden Queen	88	4.50	3.12	5.00	72
LaSeCo XP 301Y	80	2.87	3.00	3.37	69
Seneca Scout Hybrid	85	2.87	3.87	2.50	69
Tendersweet	86	2.75	2.62	4.37	72
Silver Queen	88	4.50	3.12	5.00	72
Fanfare	78	3.00	2.00	4.87	69
Robson XP 185A	84	1.75	2.62	4.50	73
Sweet Tennessee	92	3.50	2.37	3.87	72
Seneca Chief	75	2.25	2.50	5.00	72

<sup>1</sup> Soil test p = 130 (high); k = 100 (medium); pH = 6.1.

<sup>2</sup> Rating index: 5 = very easy; 4 = easy; 3 = average difficulty; 2 = difficult; 1 = very difficult.

<sup>3</sup> Rating index: 5 = long; 3 = medium length; 1 = short.



TABLE 12. SWEET CORN VARIETY TRIAL, CULLMAN, 1974<sup>1</sup>

Variety	Ears per acre	Ear wt.	Color <sup>2</sup>	Ear length	Ear diameter	Cob diameter	Kernel rows	Row shape <sup>3</sup>	Ear set ht.	Tip cover <sup>4</sup>	Ear filling <sup>4</sup>	Eye appeal <sup>4</sup>
	Doz.	Lb.		In.	In.	In.	No.		In.			
Keystone Ev. Gr. Hybrid	2,777	.54	Wh	7.33	1.47	.75	16-18	SC	31	3.40	2.63	2.88
Golden Security	2,673	.60	Y	7.61	1.50	.80	14	S	26	4.80	2.88	3.20
Apache	2,640	.62	Y	7.31	1.82	.91	14-16	S-SC	28	4.78	4.00	4.41
Sweet Tennessee	2,640	.74	Y	7.58	1.94	.86	16	SC	35	4.00	4.00	4.18
Asgrow XP 1343A	2,574	.57	Y	7.25	1.65	.88	14-16	SC	19	3.83	3.13	3.41
Rogers XP 72-1651	2,442	.57	Y	7.39	1.52	.77	14	SC	13	4.01	3.00	2.74
Goldenrod	2,409	.76	Y	8.90	1.64	.79	14-16	SC	31	3.63	3.25	3.60
Buttersweet	2,376	.68	Y	7.53	1.70	.87	18	S-SC	32	4.73	3.25	3.49
Hybrid Seneca Chief	2,376	.66	Y	7.53	1.54	.84	12-14	SC	16	3.53	3.00	3.15
Rogers XP 70-2428	2,376	.68	Y	8.13	1.57	.86	16-18	SC	22	4.40	3.25	3.78
LaSeCo XP 301Y	2,343	.70	Y	8.33	1.72	.99	14-16	SC	26	3.40	2.75	2.68
Robson XP 194	2,343	.68	Y	7.95	1.72	.89	14-16	SC	31	3.10	3.00	2.75
Rogers XP 64-2160	2,343	.68	Y	7.96	1.64	.82	12-14	SC	15	4.03	2.63	3.31
Calumet	2,310	.59	Y	8.16	1.44	.82	12-14	S-SC	26	4.20	3.00	3.40
Comet	2,310	.69	Wh	8.21	1.53	.74	14-16	SC	25	3.35	3.50	3.66
Commander	2,310	.77	Y	7.98	1.52	.86	16-18	SC	30	3.45	3.25	3.55
Hybrid Seneca Scout	2,310	.65	Y	7.28	1.53	.89	14-16	S-SC	27	4.63	2.88	4.20
Merit	2,310	.70	Y	7.79	1.81	.90	16-18	S	32	4.58	3.63	3.38
Asgrow XP-362	2,277	.72	Y	7.58	1.72	1.02	18	SC	25	3.88	2.75	2.94
Capitan	2,277	.71	Y	8.25	1.83	.77	14-16	SC	30	3.78	4.00	3.50
Niagara XP-243	2,277	.69	Y	7.99	1.76	.95	16	S-SC	35	4.35	3.38	3.98
Rogers XP 71-2291	2,277	.64	Y	7.51	1.71	.89	16-18	S-SC	24	4.28	3.63	3.80
Rogers XP 72-1707	2,277	.53	Y	7.29	1.68	.89	12-14	SC	10	3.10	3.00	2.88
Fanfare	2,244	.64	Y	7.58	1.70	.88	16-18	SC	14	4.21	3.13	4.50
Golden Queen	2,244	.79	Y	8.01	1.58	.84	12-14	SC	33	4.05	4.13	3.85
Robson XP 185A	2,244	.72	Y	8.22	1.60	.97	14-16	SC	25	3.70	3.25	3.45
Tendersweet	2,211	.65	Y	8.23	1.87	.80	14	S-SC	28	4.80	4.75	4.29
NK XP-1791	2,178	.72	Y	8.00	1.65	.89	18	SC	23	4.85	3.00	4.18
Niagara XP-245	2,178	.74	Y	8.00	1.72	.87	18-20	S	31	3.68	4.13	4.03
Triumphant II	2,178	.79	Y	7.75	1.82	1.03	16-18	SC	28	3.40	3.75	3.82
LaSeCo G-80	2,145	.91	Wh	6.50	1.53	.81	12-14	S-SC	15	4.55	2.00	2.84
Wintergreen	2,079	.68	Y	7.51	1.56	.77	14-16	SC	21	4.40	4.00	4.13
Bi-Color Silver Queen	2,046	.68	Wh	7.94	1.60	.75	12-14	SC	29	3.40	3.00	3.24
Silver Queen	2,046	.69	Wh	7.88	2.06	.74	14-16	SC	29	3.43	3.88	3.53
Silver Liner	2,013	.67	Wh	8.34	2.07	1.21	12-14	S-SC	28	3.28	4.00	4.35
Hybrid Seneca Feather	1,914	.63	Y	7.53	1.52	.99	14	SC	21	4.50	4.63	4.38

<sup>1</sup> Soil test p = 280 (very high); k = 130 (high); pH = 6.4.

<sup>2</sup> Y = yellow; Wh = white.

<sup>3</sup> S = straight; SC = slightly curved.

<sup>4</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

At Cullman, plants were transplanted into the field May 15 and spaced 15 inches apart in 5-foot rows. The binder twine trellis method was used for staking. Ten harvests were made and fruits harvested at pink and red ripe maturity, Table 16. Homestead 500 produced the highest yield of marketable fruits in the replicated trial. Nine other varieties produced over 400 cwt. per acre. Avalanche produced the highest yield of marketable fruits of all the entries. Florida MH-1, a jointless fresh market once over machine harvest type, did poorly again this year. There appears little hope for this tomato as a multi-hand harvest variety for our tomato growing areas.

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TABLE 13. PLANT CHARACTERISTICS OF SWEET CORN VARIETIES, CULLMAN, 1974<sup>3</sup>

Variety	Seed-ling vigor <sup>2</sup>	Plant height	Ease of snap-ping <sup>2</sup>	Shank length	Flag leaves <sup>4</sup>	Grow-ing days	Har-vest season			
								In.	In.	No.
Keystone Ev. Gr. Hybrid	4.00	95	3.00	3.80	2.38	82	Late			
Golden Security	3.38	96	2.75	3.99	2.63	77	Mid-season			
Apache	3.38	93	2.38	4.28	3.13	77	Mid-season			
Sweet Tennessee	3.13	87	3.00	3.33	3.00	77	Mid-season			
Asgrow XP 1343A	5.00	72	4.50	2.95	1.50	70	Early			
Rogers XP 72-1651	3.38	64	2.50	3.54	3.63	70	Early			
Goldenrod	3.88	97	4.00	3.94	2.63	80	Late			
Buttersweet	3.13	97	2.75	4.54	3.13	77	Mid-season			
Hybrid Seneca Chief	4.00	70	2.00	3.91	3.75	80	Late			
Rogers XP 70-2428	3.25	84	1.75	4.46	2.75	77	Mid-season			
LaSeCo XP 301Y	3.50	82	3.38	3.78	2.13	80	Late			
Rogers XP 194	3.38	91	2.75	3.90	2.63	80	Late			
Rogers XP 64-2160	4.13	71	3.50	3.66	3.00	76	Mid-season			
Calumet	3.50	91	2.88	3.54	3.00	77	Mid-season			
Comet	3.87	82	3.00	4.20	2.88	80	Late			
Commander	3.50	90	3.25	3.66	2.50	80	Late			
Hybrid Seneca Scout	4.00	87	2.75	3.34	3.13	77	Mid-season			
Merit	4.00	96	2.75	3.99	2.63	77	Mid-season			
Asgrow XP 362	3.75	80	3.75	3.75	2.63	80	Late			
Capitan	4.13	91	3.13	3.05	2.88	80	Late			
Niagara XP 243	4.38	91	3.00	2.61	1.38	77	Mid-season			
Rogers XP 71-2291	4.13	86	3.00	3.14	2.50	76	Mid-season			
Rogers XP 72-1707	3.38	61	3.50	3.60	3.13	70	Early			
Fanfare	3.88	75	1.75	3.71	3.38	70	Early			
Golden Queen	3.50	97	3.00	4.18	3.88	80	Late			
Robson XP 185A	3.88	80	4.00	3.92	3.38	80	Late			
Tendersweet	4.25	91	2.75	3.88	3.00	77	Mid-season			
NK XP 1791	3.38	87	3.00	3.33	3.00	77	Mid-season			
Niagara XP 245	3.13	92	3.00	2.61	1.38	77	Mid-season			
Triumphant II	3.88	88	3.50	3.60	2.25	80	Late			
LaSeCo G-80	4.25	68	3.00	3.30	3.50	77	Mid-season			
Wintergreen	3.50	96	2.75	4.43	2.63	76	Mid-season			
Bi-Color Silver Queen	3.75	85	3.63	3.65	3.25	82	Late			
Silver Queen	3.75	92	2.75	4.00	3.38	80	Late			
Silverliner	4.50	83	3.00	3.71	3.13	77	Mid-season			
Hybrid Seneca Feather	3.13	80	2.75	4.50	3.00	77	Mid-season			

<sup>1</sup> Soil test p = 280 (very high); k = 130 (high); pH = 6.4.

<sup>2</sup> Rating index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

<sup>3</sup> Rating index: 5 = very easy; 4 = easy; 3 = average difficulty; 2 = difficult; 1 = very difficult.

<sup>4</sup> Rating index: 5 = long; 3 = medium length; 1 = short.

TABLE 14. SWEET POTATO VARIETY TRIAL, AUBURN, CLANTON, AND CULLMAN, 1974<sup>4</sup>

Variety	Marketable yield per acre				U.S. No. 1 of total	Skin color
	U.S. No. 1 <sup>2</sup>	Can-ners <sup>3</sup>	Jumbo <sup>4</sup>	Total		
	Bu.	Bu.	Bu.	Bu.	Pct.	
<b>Auburn</b>						
Red Jewel	445	68	119	632	70	Red
C11-4919	316	206	46	568	56	Yellow
Ti-1885	378	95	65	538	70	Rose
Jewel	364	64	80	508	72	Copper
Jasper (L9-190)	279	122	86	487	57	Rose to copper
NC-311	230	49	176	455	51	Yellow to copper
NC-320	303	86	30	419	72	Rose
VP8-23	132	148	134	414	32	Rose to red
Centennial	255	59	93	407	63	Copper
L1-207	188	50	166	404	47	Rose
L0-69	167	124	54	345	48	Copper
VP9-51	139	161	24	324	43	Copper
NC-289	207	55	31	293	71	Rose
L7-177	155	55	82	292	53	Rose
Ti-1881	147	33	112	292	50	Yellow to white
L0-360	316	46	68	277	69	Rose to copper
L7-182	109	51	39	199	55	Rose to copper
<b>Clanton</b>						
Jasper (L9-190)	408	100	117	625	65	
L7-182	268	91	116	475	56	
Centennial	244	105	113	462	53	
L1-207	272	55	57	454	60	
NC-289	162	123	153	438	37	
Ti-1885	175	159	103	437	40	
C11-4919	219	102	30	382	57	
Red Jewel	155	74	129	358	43	
NC-311	243	82	0	325	75	
Jewel	135	97	70	302	45	
L0-360	159	70	28	286	56	
L7-177	128	65	55	248	52	
Ti-1881	166	69	0	235	71	
VP9-51	124	70	0	194	64	
VP9-23	79	55	0	134	59	
<b>Cullman</b>						
Ti-1881	389	179	85	653	60	
NC-311	373	100	156	629	59	
Red Jewel	435	153	41	629	69	
L1-207	420	130	69	619	68	
Centennial	347	138	83	569	61	
NC-320	271	136	102	509	53	
Jasper (L9-190)	275	205	16	496	55	
L7-177	242	220	9	471	51	
L7-182	214	178	53	454	48	
Jewel	227	161	52	440	52	
NC-289	125	252	35	412	30	
Ti-1885	174	209	23	383	45	
L0-69	203	173	0	376	54	
VP9-51	111	229	10	350	32	
C11-4919	152	197	0	349	44	
VP8-23	75	225	6	336	22	
L0-360	140	134	27	297	47	

<sup>1</sup> Auburn: Soil test p = 680 (EH); k = 100 (medium); pH = 5.7. 1 ton limestone applied per acre.

Clanton: Soil test p = 240 (VH); k = 110 (H); pH = 6.2.

Cullman: Soil test p = 300 (VH); k = 140 (H); pH = 6.0.

<sup>2</sup> U.S. No. 1 roots were 2 to 3½ inches in diameter, 3 to 9 inches in length, well shaped and free of defects.

<sup>3</sup> Canners were 1 to 2 inches in diameter and 2 to 7 inches in length.

<sup>4</sup> Jumbo roots exceeded the diameter, length and weight requirements for the No. 1 grade but are of marketable quality.

TABLE 15. STAKED FRESH MARKET TOMATO TRIAL, FAIRHOPE, 1974<sup>1</sup>

	Marketable yield per acre <sup>2</sup>				Culls			
	5 x 6 <sup>3</sup> 6 x 6 6 x 7 Total <sup>4</sup>				Total Cracks	Cat-face	Oth-ers <sup>5</sup>	
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Pct.	Pct.	Pct.
<b>Replicated</b>								
Better Boy								
VFN	348	267	133	748	70	68	22	10
AU-12A	199	361	140	700	15	38	38	24
Monte Carlo								
VFN	290	269	139	698	86	24	20	56
Terrific VFN	269	244	169	682	106	59	22	19
Creole	114	271	199	584	47	6	10	84
Tropic	233	252	89	574	49	46	50	4
Floradel	164	234	158	556	63	8	12	80
Bonnie Nema-tode Resistant	114	205	177	496	39	22	29	49
Sunburst	36	178	230	444	10	20	33	47
Walter	109	153	173	435	40	62	35	3
Homestead 61	83	170	167	420	28	7	9	84
AU-50	31	192	186	409	97	42	20	38
Traveler	38	206	163	407	16	82	18	0
AU-6	131	169	96	396	75	31	42	27
Homestead								
Elite	103	162	122	387	33	16	12	72
Homestead 500	83	158	131	372	23	8	3	89
Homestead 24	49	166	143	358	24	7	9	84
Florida MH-1	108	105	96	309	91	29	38	33
<b>Observational</b>								
Wonder Boy								
VF	192	241	131	564	30	78	13	8
Saturn	230	187	95	512	237	65	14	21
Venus	24	217	186	427	10	0	31	69
XP 2011 (Asgrow)	147	184	88	419	62	18	16	66

<sup>1</sup> Soil test p = 190 (high) k = 170 (high); pH = 6.0.

<sup>2</sup> Size yields reported here are in accordance with the size standards established by the USDA for the Los Angeles type lug arrangements.

<sup>3</sup> 5 x 6 arrangement: minimum diameter 2-11/16 inches; maximum diameter 3-3/16 inches.

<sup>4</sup> 6 x 6 arrangement: minimum diameter 2-8/16 inches; maximum diameter 2-14/16 inches.

<sup>5</sup> 6 x 7 arrangement: minimum diameter 2-4/16 inches; maximum diameter 2-10/16 inches.

<sup>6</sup> Some fruits in this size arrangement were larger than standard sizes.

<sup>7</sup> While fruits were graded as carefully as possible under field condition, no rigid effort was made to grade for a strict U.S. No. 1 grade. Fruits were separated for cull conditions as reported here.

<sup>8</sup> Others were mostly tomatoes too small to be marketed in the above sizes. Some were from rots, insect damage, mechanical damage and misshapen fruits.

TABLE 16. STAKED FRESH MARKET TOMATO TRIAL, CULLMAN, 1974<sup>1</sup>

Variety	Marketable yield per acre <sup>2</sup>				Culls			
	5 x 6 <sup>3</sup> 6 x 6 6 x 7 Total <sup>4</sup>				Total Cracks	Cat-face	Oth-ers <sup>5</sup>	
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Pct.	Pct.	Pct.
<b>Replicated</b>								
Homestead 500	100	322	83	505	87	3	24	73
XP 2011 (Asgrow)	141	249	75	465	112	11	20	69
Better Boy								
VFN	228	191	45	464	71	8	38	54
Terrific VFN	132	238	73	443	73	6	18	76
Homestead 61	106	272	61	439	78	12	26	62
Floradel PS	157	218	63	438	89	4	25	71
Walter Early								
Strain	81	283	74	438	91	6	19	75
Tropic	237	158	29	424	92	6	45	49
Monte Carlo								
VFN	116	221	67	404	79	4	34	62
Supermarket	30	262	111	403	80	6	10	84
Homestead 24	80	230	85	395	61	9	16	75
Traveler	31	272	90	393	35	0	7	93
AU-12A	122	192	66	380	61	1	15	84
Bonnie Nema-tode Resistant	87	240	50	377	76	2	25	73
Homestead								
Elite	67	185	62	314	78	12	19	69
Venus	28	201	84	313	81	3	12	65
Smoothie	7	193	83	283	92	15	13	72
Saturn	225	137	86	248	71	6	6	88
<b>Observational</b>								
Avalanche	194	367	70	631	123	5	36	59
AU-50	66	304	114	484	93	7	14	79
AU-6								
Wonder Boy	203	151	33	387	34	11	26	63
VF								
VFN Bush	120	198	55	373	118	21	10	69
Bonus VFN	34	213	57	304	47	15	6	79
Ace 55	243	54	2	299	66	12	49	39
Florida MH-1	52	136	27	215	54	23	36	41

<sup>1</sup> Soil test p = 300 (very high); k = 90 (medium); pH = 5.4. 1 ton limestone applied per acre.

<sup>2</sup> Size yields reported here are in accordance with the size standards established by the USDA for the Los Angeles type lug arrangements.

<sup>3</sup> 5 x 6 arrangement: minimum diameter 2-11/16 inches; maximum diameter 3-3/16 inches.

<sup>4</sup> 6 x 6 arrangement: minimum diameter 2-8/16 inches; maximum diameter 2-14/16 inches.

<sup>5</sup> 6 x 7 arrangement: minimum diameter 2-4/16 inches; maximum diameter 2-10/16 inches.

<sup>6</sup> Some fruits in this size arrangement were larger than standard sizes.

<sup>7</sup> While fruits were graded as carefully as possible under field conditions, no rigid effort was made to grade for a strict U.S. No. 1 grade. Fruits were separated for cull conditions as reported here.

<sup>8</sup> Others were mostly tomatoes too small to be marketed in the above sizes. Some were from rots, insect damage, mechanical damage and misshapen fruits.

