Vegetable Variety Trials, 1985-86

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VEGETABLE VARIETY and breeding line trials were conducted during the 1985-86 growing season at the Gulf Coast Substation, Fairhope, Chilton Area Horticulture Substation, Clanton, North Alabama Horticulture Substation, Cullman, Sand Mountain Substation, Crossville, and E. V. Smith Research Center, Shorter. All trials were conducted in randomized complete block designs with four replications. Nonreplicated observational plantings were also made of selected tomato varieties and lines. Herbicides and fertilizer applications were used for each crop and location in accordance with recommended production practices unless otherwise noted. Fertilizer rates and applications used for potatoes are reported in the sections describing potato variety trials at the Gulf Coast Substation and Sand Mountain Substation. Pest controls were applied, using recommended rates and applications of pesticides on a regular schedule throughout the growing season. Irrigation was applied to potatoes at the Gulf Coast and Sand Mountain substations. Trickle irrigation was applied to broccoli, cabbage, and tomatoes at all locations except

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Title photo shows super sweet corn at North Alabama Horticulture Substation, Cullman.

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for a fall nonirrigated test at Clanton. Sweet corn was irrigated at all locations except for a nonirrigated test at the Sand Mountain Substation.

RESULTS

Bell Peppers

CULLMAN. Seed were planted in the greenhouse at Auburn University March 4 and transplanted May 6, 1986, at a 24-inch spacing in 44-inch rows. Harvests were made on July 14 and 29. Keystone Resistant Giant #3 produced the highest yield of marketable pods, table 1. A new selection of Keystone #4 did not yield as well as the #3 selection. Keystone #3 selection also produced the most pods with four lobes. Grand Rio and Gator Belle followed Keystone #3 in marketable yields. Grand Rio produced pods with three to four lobes. Summer Sweet and Marengo are yellow fruited varieties with approximately equal yields of marketable fruit. Marengo was slightly smaller than Sweet Summer. Wall thickness varied only slightly for all varieties.

Broccoli

FAIRHOPE. Spring broccoli seed were planted in the greenhouse at Auburn University January 8, 1986, and transplanted February 21 at a 15-inch spacing in 36-inch rows. Four harvests were made, beginning April 21 and ending May 1. Galaxy was the earliest maturing variety, table 2. Twenty-four percent of this variety matured on April 21. Emperor produced the largest heads and the highest marketable yield. While all of the spring broccoli varieties were hybrids, uniformity in head size and harvest dates were quite variable. A serious problem with broccoli production is stem cracking. Only Premium Crop and Commander produced a spring crop without cracked stems. To date, this disorder has been observed in both spring and fall plantings within most of the varieties tested.

Fall broccoli seed were planted in the greenhouse at Auburn University on July 21 and transplanted August 20 at a 15-inch spacing in 30-inch rows. Nine harvests were made beginning October 3 and ending November 7. Baccus produced the earliest yield, table 3. Green Duke produced the most uniform heads for a once-over harvest. Commander produced the latest harvest. Stem cracking was a serious problem on all but three varieties. Gem produced buds with 92 percent cracked stems. Leaves that grow through the bud are objectionable in the market place. For the marketable buds harvested, Premium Crop and Gem produced the highest yield of buds with leaves present in the bud.

CLANTON. Fall broccoli seed were planted July 27, 1985, and transplanted September 1 at a 15-inch spacing in 44-inch rows. Six harvests were made, beginning October 29 and ending December 2. Southern Comet produced the highest marketable yield and the highest yield at first harvest, table 4. Stem cracking was a problem in all varieties, ranging from 79 percent for Bravo to 4 percent for Premium Crop. All varieties also produced buds with leaves growing through the bud. Southern Comet and Bravo produced buds with many leaves mixed throughout the bud.

CROSSVILLE. Varieties were direct seeded August 23, 1985, in 30-inch rows. Plants were thinned to 15 inches in the drill. Eight harvests were made, beginning October 31 and ending December 3. No concentrated yield was produced by any variety. Yields were produced throughout the entire harvest period by all varieties. Premium Crop produced the highest marketable yield, table 5. Head size was also largest for Premium Crop and smallest for Green Comet. All varieties except Green Duke produced many leaves within the bud. Percent stem cracking was high for all varieties except Green Duke. Galaxy produced the highest early yield.

Cabbage

CROSSVILLE. Seed were planted in the greenhouse at Auburn University January 26, 1986, and transplanted March 11 at a 15-inch spacing in 36-inch rows. Conquest and Greenboy produced 360 and 311 hundredweights per acre, respectively, table 6. All varieties produced 2- to 3-pound heads that were firm. Headstart produced the earliest harvest of all entries. Varieties were rated for the percent of internal white color. Blue Boy was rated as 12 percent white and Express was rated as 38 percent white. This internal white color was core and midribs. All but two varieties were harvested once-over.

CULLMAN. Seed were planted in the greenhouse at Auburn University January 26, 1986, and transplanted March 10 at a 15-inch spacing in 44-inch rows. Blue Boy and Bravo produced 443 and 407 marketable hundredweights per acre, respectively, table 7. Stonehead produced the lowest yield. This is a small headed variety that is very firm. Princess #39, Headstart, Conquest, and Ranger produced a small number of split heads. Seven varieties were harvested on May 16, 68 growing days from transplanting.

Potatoes

FAIRHOPE. Seed potatoes were cut to approximately 1½ ounces and treated with 10 percent Captan dust and planted February 20. Breeding line ND 651-9 produced the highest yield with Red La Soda a close second, table 8. New russet potatoes ND 534-4, Norking, and Norgold have produced acceptable yields for a russet potato in Baldwin County. None of the russets, however, has produced higher yields than Red La Soda, the standard check for yield. Centennial russet produces an attractive russet skin with good total solids, but this variety has not yielded well in Baldwin County.

When fertilizer rates were increased from 1,600 pounds to 2,400 pounds per acre and applied at planting, variety response was dramatic. Only Red La Soda and ND534-4 produced higher marketable yields, table 8. These data

suggest that high levels of fertilizer applied at planting may be detrimental to marketable yield and total solids. Further fertilizer studies are needed on russet potatoes in the Baldwin County potato area to establish fertilizer rates for these varieties.

CROSSVILLE. Seed potatoes were cut and treated the same as those for the Fairhope trial. ND 534-4 produced the highest marketable yield, table 9. This russet skin potato has shown good potential for the Sand Mountain area of Alabama. While Norgold and Norking were lower yielding, these two varieties are also well adapted to the Sand Mountain area of Alabama. Although Centennial russet was the lowest yielding russet at Crossville, the marketable yield was higher than for the Baldwin County area. Centennial russet produced higher total solids than the other russet entries.

Reducing the fertilizer from 1,600 pounds to 1,200 pounds per acre and applying 192 pounds per acre of total N reduced the marketable yield of Norgold russet slightly, increased the yield of Norking russet, and produced only a slight increase in yield for Centennial russet, table 10. Total solids were decreased for Norgold and Norking with the 1,600-pound rate of fertilizer. These data indicate 1,200 pounds of 8-8-8 at planting and 92 pounds of N sidedressing would be adequate for Centennial, Norgold, and Norking russet varieties.

Norgold, Norking, and Centennial russet potatoes were grown at 12- and 16-inch spacings for marketable yield, table 11. The 16-inch spacing resulted in reduced yields of 11, 16, and 23 percent, respectively. At the 16-inch spacing, size B yields were reduced, but marketable yields of size A were higher for the 12-inch spacing. Although percent stand counts were higher at the 16-inch spacing, marketable yield was not increased over the 12-inch spacing.

Southernpeas

SHORTER. Planting dates for the trials were July 17, 1984, at Shorter; June 4, 1985, and May 16, 1986, at Clanton; and May 7, 1986, at Fairhope. Rows were 36 to 40 inches apart and seedlings were thinned to 4 inches apart.

Harvest data vary among the three locations due to differences in planting dates, soil type, soil preparation, cultivation, fertility level (applied and/or residual), and the time and method of harvesting, table 12. High soil nitrogen levels promote vigorous plant growth at the expense of pod production, table 13. Early planting when the soil is still cool results in more days between planting and first harvest.

Crowder types of southernpeas generally yield more than other types. With the incorporation of virus resistance (VR) into standard varieties, there are some cream and eye types with yields comparable to crowders. Such varieties presented here are Corona, Pinkeye Purplehull-BVR, Mopod Pinkeye Purplehull, and White Acre-BVR.

Sweet Corn

FAIRHOPE. Varieties were seeded March 6, 1986, in 30-inch rows. Cold soil temperatures prevailed throughout March with a killing frost on March 22. Normal maturity dates were not obtained for any variety; all were later maturing than what is considered a normal maturity date, table 14. Captain produced the highest yield of marketable ears per acre for standard yellow varieties. Captain and Merit were rated highest for performance index of the yellow varieties. Guardian and Gold Cup also produced good yields, but were rated below Captain and Merit for quality, tip cover, ear fill, and eye appeal. Silver Queen was rated highest for performance index of the white entries. Sweet Belle was rated highest for the "super sweet" entries. Super sweet lines were influenced more by cold temperatures than the standard sweet corn varieties. They grew slower in the early seedling stage and were much slower in germinating. Super sweet varieties should not be planted before the last killing frost date.

CROSSVILLE. Seed were planted April 22, 1986, in 36-inch rows. XPH 2572 produced an excellent tip cover, ear fill, and eye appeal, and was rated highest for the yellow standard varieties, table 15. Dandy, a bi-color, was rated highest for performance index of all the varieties. Yellow varieties Captain, Guardian, Gold Cup, and Marada were rated above good to excellent for performance at Crossville. Of the white varieties, Silver Queen was rated good to excellent for performance. Snowbelle (SE), a new sugar enhanced variety, and Silverado (SE) also performed well. Nonirrigated XPH 2572, XPH 2574W, and Guardian were rated good to excellent. Bonanza and Wintergreen were also rated good for performance. Ear size was smaller for all varieties except Bonanza in the nonirrigated trial. Although Bonanza may be adapted for nonirrigated production, irrigation is strongly recommended for producing sweet corn for shipping. Super sweet varieties NXS, Summer Sweet 7200, Pinnacle, and Summer Sweet 7600 were rated good to excellent for performance. Sweet Belle was rated the highest for quality. Many of the super sweet varieties may contain sugars as high as 30 percent and in general will hold these sugars longer than most standard sweet corn varieties. Super sweet varieties cannot be cross pollinated with other corn or the high sugar quality will be lost.

CULLMAN. Planting dates were April 28, 1986, for standard varieties and May 23, 1986, for super sweet varieties. One way to avoid cross pollination is to stagger planting dates, as was done in this experiment. Thus, standard and super sweet varieties may be planted near or in the same area without cross pollination occurring. Captain was rated good to excellent for performance, table 16. Ear size was somewhat large for all of the standard varieties. Silver Queen was rated highest for performance of the white varieties at all three locations for the 1986 growing season. Silver Queen remains a high quality and desirable white sweet corn for all of Alabama. Silverado (SE) and Snowbelle (SE) performed well and produced more marketable ears than Silver Queen. Super sweet varieties Zenith and Pinnacle were rated highest for performance and Pinnacle was rated highest for quality of all the super sweet varieties.

Tomatoes

FAIRHOPE. Seed were planted in the greenhouse at Auburn University on February 27, 1986, and transplanted April 2, 1986, at a 15-inch spacing in 5-foot rows. Jefferson PS produced the highest yield of total marketable fruits, table 17. Fruit size for Jefferson PS was about equally divided among large, medium, and small size. Flora-Dade and Sunny also produced good yields of marketable fruits. These two varieties are well adapted for commercial shipping. Mountain Pride, a new variety from North Carolina, produced well in Baldwin County. Piedmont, another new release from North Carolina, produced less marketable yield than Mountain Pride, but it produced a larger fruit and a higher yield of large (5 x 6) fruits. Pacific, a new variety from Asgrow, produced a good yield of large (5 x 6) fruits that were firm. Pacific has commercial shipping potential for Baldwin County. ATH-86-8 x 6 produced a good yield of firm fruits. This line has commercial potential. Salad tomato lines 7117 and 7143 from the University of Florida are well adapted to Baldwin County and produce excellent yields of firm fruits.

Celebrity, Independence, and ATH-86-8 x 6 hybrid were the earliest large fruited varieties, table 18. The earliest peak yield for a single harvest was recorded for Castlehy 1035, 724 Hybrid, XPH 5031 Hybrid, and Independence Hybrid. Peak harvest occurred most often on June 30 for all but three varieties. Mountain Pride and Pole Boy 83 produced the latest first harvest. Salad 7117 was the earliest maturing of all the entries. ATH-86-44-58 was the tallest growing plant, Independence Hybrid was the shortest of the large fruited varieties, and Salad 7143 was the shortest plant type of all the entries, table 19. Fruit shape was uniform for all but seven varieties. Fruit firmness, while subjective, varied throughout the varieties. Nine varieties had jointless fruit character. Eye appeal was good for most entries, except ATH-86-8x6 was rated rough in overall appearance. Eleven large fruited and the 2 salad varieties were rated for potential commercial shipping. Several varieties were rated as dual purpose varieties.

CULLMAN. Seed were planted in the greenhouse at Auburn University on March 27, 1986, and transplanted May 7, 1986, at a 15-inch spacing in 5-foot rows. President and Ole varieties produced the highest marketable yields, table 22. Sunny and Celebrity varieties also produced good yields of marketable fruits. Pacific, a new variety from Asgrow, produced approximately the same yield of large (5 x 6) and medium (6 x 6) size fruits. Pacific is well adapted to the Cullman area. The salad tomato NC 8642 from North Carolina produced a good yield of marketable fruits and is well adapted to the Cullman area. Thirteen varieties were harvested on the first harvest date, table 23. The bulk of the varieties produced peak harvests on the last three harvest dates. A serious problem developed with red spider mites last year at Cullman and perhaps contributed to the erratic harvest pattern for the spring 1986 crop. Fruit characteristics are presented in table 24. Several varieties produced plants in the 50- to 60-inch height range. PSX 1994 produced the shortest plant type. Celebrity, Pacific, Mountain Pride, Flora-Dade, Sunny, Hayslip, and NC 8642 produced compact plants that were less of a problem than other varieties for tying within the trellis system of culture. Seven varieties were jointless.

Fall Tomatoes

CLANTON. Seed were planted in the greenhouse at Auburn University on June 6, 1986, and transplanted July 15, 1986, at a 15-inch spacing in 5-foot rows. Two plantings were made, one irrigated and one not irrigated, table 20. Sunny produced 62 percent more marketable fruit when irrigated than when not irrigated. All varieties produced high marketable yields when irrigated. The yield of large size fruit (5 x 6) was increased by irrigation. Cull yields of small size fruits, those too small for marketing, were highest in the nonirrigated varieties. Both irrigated and nonirrigated varieties were harvested beginning September 29, table 21. Irrigation did not delay earliness, however, Monte Carlo VFN and Bonnie Nematode Resistant VFN produced their peak harvest on September 29 for the nonirrigated test. President VF_2N TMV produced a peak harvest for irrigated and nonirrigated on September 29. Irrigation contributed to late peak harvest for five varieties, while nonirrigated Mountain Pride was the only variety with a late peak harvest. These data confirm the need for controlled water for the production of fall tomatoes.

Potential Use for Tomato Varieties

In the different locations where tomato trials were conducted, varieties designated "3" for suggested use would have potential for all three suggested uses, tables 18 and 23. However, entries rated for home garden and roadside use ("1" and "2") may not be suitable for plantings made for commercial shipping. A suggested use rating was not given for the fall planting at Clanton. However, for any given variety, the use rating made at Cullman would apply.

EDITOR'S NOTE: Data presented in this report represent an unbiased evaluation of each entry. Variety, company, and chemical names are used for identification and do not imply endorsement of one over the other. Seed of breeding lines are not available for planting until named and released. Disease and nematode resistance in varieties are those reported by seed producers. Variety trials under irrigation at the Sand Mountain Substation were supported in part by the Tennessee Valley Authority.

TABLE 1. BELL PEPPER VARIETY TRIAL, CULLMAN, 1986[1]

Variety and seed source	Marketable yield/acre			Fruit characteristics					
	Wt.	Pods	Av. fruit wt.	Fruit length	Fruit width	Wall thickness	Lobes[2]	Fruit color[3]	Plant height
	Lb.	*No.*	*Lb.*	*In.*	*In.*	*mm*	*No.*		*In.*
Replicated									
Keystone #3 (Harris)	10,191	29,273	0.35	2.98	2.70	5	4	DG	24
Grand Rio (Harris)	9,885	27,798	.36	2.98	2.67	5	3-4	DG	21
Gator Belle (A & C)	9,790	26,574	.37	3.55	2.58	5	3	DG	21
Skipper (Asgrow)	8,937	25,270	.35	2.70	2.43	5	3-4	DG	20
Midway (Petoseed)	8,005	25,547	.31	2.87	2.55	5	3	DG	22
Summer Sweet (Twilley)	7,478	19,125	.39	3.43	3.08	5	3	yellow	24
Bell Captain (Peto Seed)	7,472	21,820	.34	3.40	2.78	5	3	DG	21
Marengo (Asgrow)	7,442	19,883	.37	3.55	2.60	4	3	yellow	17
Jade (Asgrow)	6,380	21,170	.30	3.58	2.45	5	3	DG	19
Golden Belle (Twilley)	6,339	17,873	.35	4.33	2.65	4	3	yellow	23
Keystone #4 (Twilley)	4,293	12,240	.35	2.65	2.48	4.5	3	DG	25
Mercury (Petoseed)	3,620	13,124	.28	3.08	2.53	5	3	LG	23

[1] Soil test: P = 370 (VH), K = 160 (H), pH = 5.7; 1.5 tons limestone applied per acre.
[2] The number in this column occurred the most often.
[3] LG = light green, DG = dark green.

TABLE 2. BROCCOLI VARIETY TRIAL, FAIRHOPE, 1986[1]

Variety and seed source	Marketable yield/acre (center bud only)	Average head weight	Head dia.	Stem dia.	Leaf in bud 1=none 5=many	Plant height	Stem cracked	Percent of total yield at each harvest date			
								4-21	4-25	4-28	5-1
	Lb.	*Lb.*	*In.*	*In.*	*No.*	*In.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Emperor (Agri-Seed)	7,716	0.67 spread (.4-.9)	5.64	1.29	1	16	34	0	16	84	0
Septal (Agri-Seed)	6,955	.52 spread (.2-.8)	5.51	1.24	1	20	25	0	0	63	37
Green Comet (Twilley)	6,565	.58 spread (.4-.9)	5.82	1.43	1	18	69	0	2	80	18
Green Duke (Twilley)	6,507	.56 spread (.3-.8)	5.85	1.43	1	18	18	0	36	46	18
Southern Comet (Agway)	6,304	.56 spread (.4-.8)	5.92	1.42	1	17	67	0	67	33	0
Commander (Agri-Seed)	6,246	.55 spread (.2-.8)	5.40	1.30	1	19	0	0	2	67	31
Galaxy (Asgrow)	5,984	.61 spread (.4-.8)	5.84	1.28	1	17	82	24	38	38	0
Bravo (A&C)	5,810	.49 spread (.2-.9)	5.93	1.29	1	18	71	0	42	58	0
Premium Crop (Agway)	5,723	.49 spread (.2-.7)	5.42	1.19	1	21	0	0	0	65	35

[1] Soil test: P = 44 (M), K = 159 (M), pH = 5.7; 1 ton limestone applied per acre.
Transplanted February 21, harvested April 21 (60 days), April 25 (64 days), April 28 (67 days), May 1 (70 days).
Rainfall: February, 4.66 inches; March, 3.91 inches; April, 3.33 inches; total for growing season, 11.9 inches.
Temperature: Low 28°F, March 1 & 2. High 83°F, April 29 & 30.
Rows 3 feet: plants spaced 15 inches in drill.

TABLE 3. BROCCOLI VARIETY TRIAL, FAIRHOPE, FALL 1986[1]

Variety and seed source	Marketable yield/acre (ctr bud only)	Head size	Head dia.	Stem dia.	Leaf in bud, 1=none 5=many	Plant height	Stems cracked	Percent of total yield at each date									Growing days
								10-3	10-7	10-14	10-17	10-21	10-28	10-31	11-4	11-7	
	Lb.	*Lb.*	*In.*	*In.*	*No.*	*In.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*No.*
Green Duke (Twilley) ...	7,785	0.67	5.35	1.41	2	14	23	5	0	82	4	0	9	0	0	0	45-70
Premium Crop (Agway)	7,437	.64	5.42	1.34	4	16	21	0	0	18	25	43	14	0	0	0	56-70
Commander (Agri-Seed)	7,088	.61	5.23	1.69	1	14	0	0	0	0	0	0	0	63	26	11	73-80
Gem (Asgrow)	7,088	.61	5.06	1.43	3.5	17	92	0	0	0	3	41	58	0	0	0	59-77
Green Valiant (Twilley)	7,088	.61	5.28	1.45	1	16	0	0	0	0	0	0	15	70	15	0	70-77
Green Comt (Agway	6,623	.57	5.13	1.26	1	13	52	0	13	70	0	8	9	0	0	0	49-70
Southern Comet (Agway)	6,159	.53	5.15	1.34	2	16	4	6	0	56	17	13	14	0	0	0	45-70
Galaxy (Asgrow)	6,042	.52	5.55	1.29	1.5	15	12	0	35	53	12	0	0	0	0	0	49-59
Bravo (A & C)	5,810	.50	3.92	1.25	1.5	21	71	0	24	73	0	3	0	0	0	0	49-63
Baccus (Asgrow)	4,067	.35	4.63	1.18	1	14	0	58	29	8	0	5	0	0	0	0	45-63

[1] Soil test results: P = 94 (M), K = 222 (H), pH = 6.2.
Transplanted August 20; temperature 94°F.
Fertilizer: 100 pounds N per acre, half at planting, half 3-4 weeks after planting; 5 pounds Solubor per acre applied in transplant water.
Rows 2.5 feet; plants spaced 15 inches in drill; 13,940 plants per acre.

TABLE 4. BROCCOLI VARIETY TRIAL, CLANTON, 1985[1]

Variety and seed source	Marketable yield/acre (center bud only)	Head size	Head dia.	Stem dia.	Leaf in bud 1=none 5=many	Plant height	Stem cracked	Percent of total yield at each harvest date						Days from transplant to harvest
								10-29	10-30	11-5	11-15	11-19	12-2	
	Lb.	*Lb.*	*In.*	*In.*	*No.*	*In.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*No.*
Southern Comet (Agway)	7,819	0.79	7.03	1.43	5	16	50	95	0	5	0	0	0	59-66
Bravo (A&C)	7,400	.87	6.59	1.43	4	18	79	82	0	0	0	18	0	59-80
Green Duke (Twilley)	7,002	.78	6.53	1.42	2	13	39	61	0	11	0	28	0	59-80
Premium Crop (Twilley).....	6,245	.66	5.83	1.29	3	14	4	74	0	21	0	5	0	59-80
Galaxy (Asgrow)	6,076	.72	7.32	1.31	2	15	39	6	0	22	0	11	6	59-93
Green Valiant (Twilley)	4,950	.52	7.10	1.45	2	17	64	0	5	68	6	21	0	60-80
Appolo (Asgrow)	4,203	.47	4.39	1.15	2	14	29	33	0	39	0	28	0	59-80

[1] Soil test: P = 300 (VH), K = 140 (H), pH = 5.5; 1 ton limestone applied per acre.
Transplanted September 1.
Rows 44 inches, plants spaced 15 inches in drill.

TABLE 5. BROCCOLI VARIETY TRIAL, CROSSVILLE, FALL 1985[1]

Variety and seed source	Marketable yield/acre (center bud only)	Head size	Head dia.	Stem dia.	Leaf in bud, 1=none 5=many	Plant height	Stems cracked	Percent of total yield at each date								Days from seeding to harvest
								10-31	11-5	11-11	11-15	11-18	11-22	11-25	12-3	
	Lb.	*Lb.*	*In.*	*In.*	*No.*	*In.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*No.*
Premium Crop (Twilley)	5,832	0.40	4.80	——	5	19	100	0	0	15	18	32	10	0	25	81-103
Emperor (Agri-Seed)	5,798	.37	4.6	——	5	19	98	5	9	14	12	30	18	0	12	70-103
Green Duke (Twilley)	5,762	.38	4.58	——	1	20	4	17	7	31	24	19	0	0	2	70-103
Commander (A & C)	5,714	.36	4.6	——	5	18	100	0	0	5	5	50	16	9	15	81-103
Prominence (Agri-Seed)	4,987	.36	4.33	——	5	18	41	10	8	25	15	10	15	5	12	70-103
Septal (Agri-Seed)	4,945	.36	4.51	——	5	20	97	0	0	0	8	45	18	3	26	85-103
Galaxy (Asgrow)	4,614	.27	4.75	——	5	16	77	40	17	26	11	6	0	0	0	70-88
Green Comet (Agway)	2,615	.23	3.9	——	5	19	90	26	15	10	10	13	13	3	10	70-103
Bravo (A & C)	2,602	.27	3.9	——	5	17	88	0	22	15	30	25	4	0	4	75-103
Southern Comet (Agway) ...	2,570	.34	4.97	——	5	19	71	0	14	19	5	19	19	5	19	75-103

[1] Soil test results: P = 100 (M), K = 110 (H), pH = 6.1.
Direct seeded August 23.

TABLE 6. CABBAGE VARIETY TRIAL, CROSSVILLE, SPRING 1986 [1]

Variety and seed source	Marketable yield/acre	Head weight	Head length	Head dia.	Core length	Core width	Shape[2]	Color[3]	Firmness[4]	Internal color[5]	Split heads	Date harvested	Growing days from transplanting
	Cwt.	*Lb.*	*In.*	*In.*	*In.*	*In.*				*Pct.*	*Pct.*		*No.*
Conquest (Asgrow)	360	3.10	5.45	5.68	2.66	1.23	R	LG	F	35	0	6-2	83
Greenboy (NK)	311	2.68	5.48	5.65	2.44	1.20	R	LG	F	32	0	6-2	83
Express (Asgrow).....	279	2.40	5.45	4.98	2.46	1.18	O	LG	F	38	0	6-2	83
Ranger (Asgrow)	272	2.33	5.30	5.13	2.16	1.25	R	LG	F	37	0	6-2	83
Bravo (Harris)	265	2.28	5.00	5.48	2.09	1.10	R	LG	F	27	0	6-3	84
Princess #39 (Agway)..	258	2.23	5.30	5.10	2.42	1.08	O	LG	F	25	0	6-2	83
Headstart (Asgrow)	250	2.15	5.55	5.28	2.30	1.14	R	LG	F	21	0	5-23:6-3	74-85
Market Topper (Harris)	243	2.07	5.08	4.90	2.35	1.16	R	LG	F	24	0	6-2	83
Stonehead (Twilley) ...	238	2.05	5.38	4.35	1.27	1.20	O	LG	F	31	0	6-2	83
Supermarket (Twilley)..	236	2.03	5.15	7.13	2.66	1.15	R	LG	F	17	0	6-2	83
Blue Boy (Twilley).....	234	2.00	5.00	5.70	2.35	1.13	R	LG	L	12	0	5-27:6-2	78-83

[1] Soil test: P = 90 (M), K = 80 (L), pH = 5.6; 1 ton limestone applied per acre.
Planted March 11; 75 pounds N, 75 pounds P_2O_5, and 75 pounds K_2O per acre at planting; 100 pounds N sidedress 30 days after planting; 5 pounds per acre Solubor applied in transplant water.
Plants were spaced 15 inches in drill in 36-inch rows; 11,620 plants per acre.
Rainfall: March 11-31, 1.9 inches; April, 0.96 inch; May 4.67 inches; June 1-3, 0.65 inch; total for growing season, 8.18 inches.
[2] Shape: R = round, O = oval.
[3] Color: LG = light green.
[4] Firmness: F = firm, L = loose.
[5] Amount of white color. Most of this was core and midribs.

TABLE 7. CABBAGE VARIETY TRIAL, CULLMAN, SPRING 1986 [1]

Variety and seed source	Marketable yield/acre	Head weight	Head length	Head dia.	Core length	Core width	Shape[2]	Color[3]	Firmness[4]	Split heads	Date harvested	Growing days from transplanting
	Cwt.	*Lb.*	*In.*	*In.*	*In.*	*In.*				*Pct.*		*No.*
Blue Boy Hy (Twilley) ...	443	4.67	6.27	7.31	2.82	1.49	R-F	G-LG	L-F	0	5-22-26	74-78
Bravo Hy (Harris)	407	4.28	6.23	6.56	2.57	1.46	R	G	F	0	5-26	78
Green Boy Hy (NK)	377	3.97	6.81	7.10	3.07	2.11	R	G-LG	F	0	5-22	74
Supermarket Hy (Twilley)	320	3.37	6.36	6.44	3.67	1.69	R	G	F	0	5-22	74
Princess #39 Hy (Agway)	286	3.00	6.13	6.30	3.65	1.20	R	G	F	1	5-16	68
Headstart Hy (Asgrow)..	244	2.51	5.55	5.35	2.57	1.40	R	G	L-F	.75	5-16	68
Conquest Hy (Asgrow)...	214	2.25	5.25	5.70	3.08	1.18	R	G	F	.25	5-16-18	68-70
Ranger Hy (Asgrow)	193	2.03	5.10	5.13	2.80	1.25	R	G-DG-LG	F	.25	5-16	68
Express Hy (Asgrow)	181	1.91	5.65	5.05	2.93	1.48	R	G	F	0	5-16	68
Market Topper Hy (Harris)	168	1.77	4.43	4.08	2.38	1.13	R	G-LG	F	0	5-16	68
Stonehead Hy (Twilley)..	157	1.66	4.50	4.73	2.20	1.35	R	G	F	0	5-16	68

[1] Soil test: P = 240 (VH), K = 110 (H), pH = 5.3; 2 tons limestone applied per acre.
Planted March 10. Plants spaced 15 inches in drill in 44-inch rows; 9,500 plants per acre.
Fertilizer: 200 pounds N, 130 pounds P_2O_5, and 130 pounds K_2O; 5 pounds per acre Solubor applied in transplant water.
[2] Shape: R = round, F = flat.
[3] Color: LG = light green, DG = dark green.
[4] Firmness: L = loose, F = firm.

TABLE 8. POTATO VARIETY TRIAL, FAIRHOPE, SPRING 1986 [1]

Variety and seed source	Marketable yield/acre			Percent B of total	Total solids	Stand at harvest	Type
	Size A [2]	Size B	Total yield				
	Cwt.	*Cwt.*	*Cwt.*		*Pct.*	*Pct.*	
1,600 lb./acre 10-10-10 + minor elements at planting							
ND 651-9 (L.E. Tibert, N.D.)	231	11	242	5	21.06	95	round-white
Red La Soda (L.E. Tibert, N.D.)	214	5	219	2	19.58	95	round-red
ND 860-2 (L.E. Tibert, N.D.)	161	13	174	8	21.48	94	round-white
Krantz (L.E. Tibert, N.D.)	162	4	166	2	20.21	88	round-white (some russet)
ND 534-4 (L.E. Tibert, N.D.)	149	9	158	6	21.96	96	russet-long
Norking (L.E. Tibert, N.D.)	143	6	149	4	22.54	93	russet-long
Norgold (L.E. Tibert, N.D.)	137	13	149	9	24.22	95	russet-oval long
Centennial (L.E. Tibert, N.D.)	103	10	113	9	21.27	91	russett-round flat
2,400 lb./acre 10-10-10 + minor elements at planting							
Red La Soda (L.E. Tibert, N.D.)	243	7	250	3	19.37	97	round-red
ND 534-4 (L.E. Tibert, N.D.)	168	7	175	4	20.21	95	russet-long
ND 651-9 (L.E. Tibert, N.D.)	148	11	159	7	23.59	93	round-white
ND 860-2 (L.E. Tibert, N.D.)	143	10	153	7	21.90	86	round-white
Krantz (L.E. Tibert, N.D.)	108	22	130	17	19.79	93	round-white (some russet)
Norgold (L.E. Tibert, N.D.)	81	7	88	8	19.37	88	russet-oval long
Norking (L.E. Tibert, N.D.)	81	3	84	4	20.64	95	russet-long
Centennial (L.E. Tibert, N.D.)	52	12	64	19	18,74	96	russet-round flat

[1] Planted February 20, harvested June 10, 111 growing days. Soil test: P = 44 (M), K = 160 (M), pH = 5.7.
Rainfall: February, 4.66 inches; March, 3.91 inches; April, 3.33 inches; May, 5.35 inches; June 1-10, 0.33 inch.
Freeze on March 22 killed tops back to ground.
Herbicide: 1 quart Dual per acre at layby, March 28.
[2] Size A = potatoes with 1 ⅞ inches diameter and larger, Size B = potatoes with 1 ½ to 1 ⅞ inches diameter.

TABLE 9. POTATO VARIETY TRIAL, CROSSVILLE, SPRING 1986 [1]

Variety and seed source	Marketable yield/acre			Percent B of total	Total solids	Stand at harvest	Type
	Size A [2]	Size B	Total yield				
	Cwt.	*Cwt.*	*Cwt.*		*Pct.*	*Pct.*	
ND 534-4 (L.E. Tibert, N.D.)	178	14	192	7	20.64	92	russet-long
ND 651-9 (L.E. Tibert, N.D.)	170	12	182	7	21.27	93	round-white
Norgold Russet (L.E. Tibert, N.D.)	158	14	172	8	19.79	85	russet-oval long
Norking Russet (L.E. Tibert, N.D.)	153	12	165	7	20.85	79	russet-long
Krantz (L.E. Tibert, N.D.)	149	7	156	5	21.06	91	russet-uneven
Centennial (L.E. Tibert, N.D.)	142	12	154	8	22.33	91	russet-oval round
ND 860-2 (L.E. Tibert, N.D.)	90	10	100	10	22.96	91	round-white

[1] Planted March 11, harvested July 8, 120 growing days. Soil test: P = 100 (M), K = 110 (M), pH = 6.1.
Fertilizer: 1,600 pounds per acre 8-8-8 applied at planting; sidedressed April 10 with 64 pounds N from NH_4NO_3.
Insecticide: Temik, 3 pounds ai per acre at planting; Herbicide: Dual, 1 quart per acre at layby.
Rainfall: March, 1.94 inches; April, 0.96 inch; May, 4.67 inches: June, 2.24 inches; July 1-8, 0.19 inch.
Freeze on April 23-24 killed tops back to ground.
[2] Size A = potatoes with 1 ⅞ inches diameter and larger, Size B = potatoes with 1 ½ to 1 ⅞ inches diameter

TABLE 10. POTATO FERTILITY STUDY, CROSSVILLE, SPRING 1986[1]

Treatment	Yield/acre			Percent B of total	Total solids	Stand at harvest
	Size A[2]	Size B	Total yield			
	Cwt.	*Cwt.*	*Cwt.*		*Pct.*	*Pct.*
1,200 lb./acre 8-8-8						
Norgold russet	140	14	154	9	20.00	88
Norking russet	177	10	187	5	22.33	84
Centennial russet	145	10	155	7	22.75	98
1,600 lb./acre 8-8-8						
Norgold russet	158	14	172	8	19.79	85
Norking russet	153	12	165	7	20.85	79
Centennial russet	142	12	154	8	22.33	91

[1] Planted March 11, harvested July 8, 120 growing days. Soil test: P = 100 (M), K = 110 (M), pH = 6.1.
Sidedressed April 10: 1,200-pound treatment, 96 pounds N; 1,600-pound treatment. 64 pounds N from NH_4NO_3.
Insecticide: Temik, 3 pounds ai per acre at planting; Herbicide: Dual, 1 quart per acre at layby.
Rainfall: March, 1.94 inches; April 0.96 inch; May, 4.67 inches; June, 2.24 inches; July 1-8, 0.19 inch.
Freeze on April 23-24 killed tops back to ground.
[2] Size A = potatoes with 1 ⅞ inches diameter and larger, Size B = potatoes with 1 ½ to 1 ⅞ inches diameter.

TABLE 11. POTATO SPACING STUDY, CROSSVILLE, SPRING 1986[1]

Treatment	Yield/acre			Percent B of total	Total solids	Stand at harvest
	Size A[2]	Size B	Total yield			
	Cwt.	*Cwt.*	*Cwt.*		*Pct.*	*Pct.*
12-inch spacing						
Norgold russet	158	14	172	8	19.79	85
Norking russet	153	12	165	7	20.85	79
Centennial russet	142	12	154	8	22.33	91
16-inch spacing						
Norgold russet	143	10	153	7	20.21	96
Norking russet	133	6	139	4	20.85	81
Centennial russet	113	6	119	5	21.48	98

[1] Planted March 11, harvested July 8, 120 growing days. Soil test: P = 100 (M), K = 110 (M), pH = 6.1.
Fertilizer: 1,600 pounds per acre 8-8-8 applied at planting; sidedressed April 10 with 64 pounds N from NH_4NO_3.
Insecticide: Temik, 3 pounds ai per acre at planting; Herbicide: Dual, 1 quart per acre at layby.
Rainfall: March, 1.94 inches; April 0.96 inch; May, 4.67 inches; June, 2.24 inches; July 1-8, 0.19 inch.
Freeze on April 23-24 killed tops back to ground.
[2] Size A = potatoes with 1 ⅞ inches diameter and larger, Size B = potatoes with 1 ½ to 1 ⅞ inches diameter.

TABLE 12. SOUTHERNPEA VARIETY TRIALS, SHORTER, CLANTON, AND FAIRHOPE, 1984-86

Variety and seed source	Multiple-harvest, in-pod yield/acre			Once-over harvest in pod yield/acre	Average number of harvests	Average days to first harvest	Average shellout percentage
	1984 Shorter	1985 Clanton	1986 Clanton	1986 Fairhope			
	Bu.	*Bu.*	*Bu.*	*Bu.*	*No.*	*No.*	*Pct.*
Alabrowneye (Auburn U.)	219	—	133	76	6	62	55
Alabunch (Auburn U.)	192	—	176	125	5	69	49
Alacrowder (Auburn U.)	273	—	116	157	8	58	42
Alalong (Auburn U.)	202	—	234	80	6	69	50
Big Boy (local)	332	191	221	146	7	62	43
Black Crowder (local)	334	107	286	264	7	62	49
Brown Sugar Crowder (local)	340	158	274	234	8	58	48
Calico Crowder (local)	255	—	208	122	8	62	55
California Blackeye #5 (local)	272	—	223	—	7	58	48
Colossus (local)	277	—	273	223	7	58	40
Corona (U. of Georgia)	270	171	119	182	6	58	49
Coronet (U. of Georgia)	—	175	—	—	7	52	48
Dixielee (local)	227	—	158	231	7	58	43
Early Dixie Queen (Auburn U.)	231	—	—	216	7	58	54
Freezegreen (local)	147	85	216	141	5	69	40
Giant Blackeye (local)	354	153	285	141	6	69	39
Iron/Clay (local	197	—	*	*	5	72	53
Knuckle Purplehull (local)	233	124	303	212	7	58	48
Lady (local)	96	—	132	69	6	69	55
Mississippi Cream (local)	—	187	366	163	4	67	32
Mississippi Purple (local)	312	—	391	163	7	58	43
Mississippi Silver (local)	379	204	340	293	7	58	48
Mopod Pinkeye Purplehull (local)	—	—	303	228	7	58	50
Pinkeye Purplehull (local)	216	128	201	116	7	58	51
Pinkeye Purplehull (Auburn U.)	—	—	247	218	7	58	49
Pinkeye Purplehull (Segrest)	243	—	—	—	6	58	42
Pinkeye Purplehull-BVR (U. of Georgia)	302	187	256	270	6	58	51
Purplehull Browneye Crowder (Imperial)	230	—	154	129	6	58	52
Sa-Dandy (local)	278	—	192	129	8	58	47
Speckled Purplehull (local)	259	139	250	129	6	65	51
Tennessee White Crowder (local)	—	—	280	159	7	63	60
Texas Cream #40 (local)	200	—	171	100	7	58	54
Texas Purplehull #49 (local)	172	—	180	132	6	62	49
Whippoorwill (local)	73	—	209	192	5	69	42
White Acre (local)	219	91	—	—	8	62	42
White Acre-BVR (U. of Georgia)	304	93	170	105	7	58	46
Worthmore (local)	—	—	336	197	8	63	50
Zipper Cream (local)	259	173	242	268	7	62	44
AU-70.4 (Auburn U.)	335	144	289	205	8	58	36
AU-82-VK-4 (Auburn U.)	362	235	363	188	7	58	41
AU-82-VK-9 (Auburn U.)	—	221	345	244	8	67	56
AU-84-M-38 (Auburn U.)	—	209	278	192	8	69	55
AU-84-GC-67 (Auburn U.)	—	120	314	184	8	62	55
AU-84-GC-328 (Auburn U.)	—	206	310	157	9	62	50
AU-84-GC-441a (Auburn U.)	—	170	282	122	8	60	60
AU-85-CG-7 (Auburn U.)	—	—	270	213	7	64	48
AU-85-M-Ob-11 (Auburn U.)	—	—	270	263	8	61	60
AU-85-CCR-20 (Auburn U.)	—	—	136	150	7	64	55
AU-78.3e (Auburn U.)	—	175	225	180	8	62	54

*Matured too late for harvesting.

TABLE 13. PLANT CHARACTERISTICS OF SOUTHERNPEA VARIETIES AND BREEDING LINES, 1984-86

Variety (cultivar)	Growth habit	Virus rating[1]	Dry seed color	Eye color	Dry seed shape	Pod color, fresh
Alabrowneye	semi-bush	3.5	cream	brown	kidney	green
Alabunch	bush	2.5	white	black	kidney	green
Alacrowder	semi-vine	3.5	cream	black	crowder	green
Alalong	semi-vine	4.0	cream	brown	kidney	green
Big Boy	semi-vine	3.5	white	tan	ovate	green
Black Crowder	semi-vine	3.5	brown	none	crowder	green
Brown Sugar Crowder	semi-vine	4.5	brown	none	crowder	green
Calico Crowder	vine	3.5	white and red	none	crowder	green
California Blackeye #5	semi-vine	2.0	white	black	kidney	green
Colossus	semi-vine	3.5	brown	none	crowder	light green
Corona	semi-vine	4.0	white	pink	ovate	purple
Coronet	semi-vine	3.0	cream	pink	ovate	purple
Dixielee	semi-bush	2.5	tan	none	ovate	green
Early Dixie Queen	semi-bush	3.0	cream	brown	kidney	green
Freezegreen	semi-vine	3.0	green	none	ovate	reddish-green
Giant Blackeye	vine	4.0	white	black	ovate	green
Iron/Clay	vine	4.5	tan	none	globose	green
Knuckle Purplehull	semi-bush	3.5	brown	none	crowder	purple
Lady	semi-bush	1.5	white	none	globose	green
Mississippi Cream	semi-bush	3.0	cream	none	kidney	
Mississippi Purple	semi-vine	4.0	brown	none	crowder	purple
Mississipppi Silver	semi-vine	4.0	brown	none	crowder	light green
Mopod Pinkeye Purplehull	semi-vine	4.0	cream	pink	ovate	purple
Pinkeye Purplehull	semi-vine	1.0	cream	pink	ovate	purple
Pinkeye Purplehull	semi-vine	2.0	cream	pink	ovate	purple
Pinkeye Purplehull	vine	3.5	cream	pink	ovate	purple
Pinkeye Purplehull-BVR	semi-vine	3.5	cream	pink	ovate	purple
Purplehull Browneye Crowder	semi-bush	2.5	cream	brown	crowder	purple
Sa-Dandy	semi-vine	4.0	cream	none	kidney	green
Speckled Purplehull	semi-vine	4.5	speckled	none	ovate	purple
Tennessee White Crowder	semi-vine	3.0	cream	brown	crowder	green
Texas Cream #40	semi-vine	3.5	cream	none	kidney	green
Texas Purplehull #49	semi-bush	2.5	white	buff	kidney	purple
Whippoorwill	semi-bush	3.0	speckled	none	ovate	reddish green
White Acre	semi-vine	3.5	cream	none	kidney	green
White Acre-BVR	semi-vine	4.0	cream	none	kidney	green
Worthmore	semi-vine	4.5	brown	none	crowder	green
Zipper Cream	semi-vine	4.0	cream	none	ovate	light green
AU-70.4	tall bush	4.0	white	black	ovate	green
AU-82-VK-4	semi-vine	3.5	brown	none	crowder	purple
AU-82-VK-9	semi-vine	4.0	brown	none	crowder	purple
AU-84-M-38	semi-vine	4.0	brown	none	crowder	purple
AU-84-GC-67	semi-bush	4.0	green	black	ovate	green
AU-84-GC-328	semi-vine	4.0	brown	none	crowder	purple
AU-84-GC-441a	semi-bush	4.0	green	black	ovate	green
AU-85-GC-7	semi-vine	4.0	brown	none	crowder	purple
AU-85-M-Ob-11	semi-bush	3.5	brown	none	crowder	purple
AU-85-W-CCR-20	semi-bush	3.0	white	none	globose	green
AU-78.3e	semi-bush	3.5	green	brown	kidney	purple

[1] Virus ratings: 0 = susceptible, 5 = resistant.

TABLE 14. SWEET CORN VARIETY TRIAL, FAIRHOPE, 1986

Variety and seed source	Performance index[2]	Ears/ acre	Ear wt	Plants with mkt. Ears	Days to harvest	Ear length	Ear dia.	Cob dia.	Kernel rows	Row shape[4]	Ear set height	Plant height	Quality index[3]	Tip cover[3]	Ear fill	Eye appeal[3]
		Doz.	*Lb.*	*Pct.*	*No.*	*In.*	*In.*	*In.*	*No.*		*In.*	*In.*				
Yellow																
Captain (Asgrow)	3.88	2,183	0.41	92	93	7.75	1.68	0.5	14-16	S	19	70	4.0	3.5	4.0	4.0
Merit (Asgrow)	3.88	1,985	.47	92	90	7.50	1.88	.75	16-18	SC	24	70	4.5	3.5	3.5	4.0
Seneca Scout (Roberson)	3.50	1,690	.44	91	90	7.00	1.68	.5	14-16	SC	20	58	4.0	3.0	3.0	4.0
2572 (Asgrow)	3.50	1,611	.49	86	90	7.00	1.60	.5	14-16	SC	13	44	4.0	3.0	3.5	3.5
Commanche (Asgrow)...	3.21	1,457	.37	46	85	7.00	1.55	.5	14-16	SC	11	50	4.0	3.0	3.0	3.0
Dandy (BC) (Asgrow)....	3.25	2,042	.39	69	98	6.25	1.73	.5	12-16	SC	21	68	4.0	3.0	3.0	3.0
Golden Cup (Harris)	3.13	2,007	.32	68	93	6.50	1.60	.5	14-16	SC	17	64	3.5	3.0	3.0	3.0
Guardian (Asgrow)	3.13	2,087	.35	81	93	7.00	1.60	.5	14-16	SC	14	56	3.5	3.0	3.0	3.0
Apache (Asgrow)	3.00	2,087	.39	71	90	6.75	1.63	.5	20	SC	4	73	3.0	3.0	3.0	3.0
Commander (Asgrow)...	2.68	1,619	.47	54	100	7.25	1.98	.5	18-20	SC	20	68	2.1	2.8	3.3	2.5
White																
Silver Queen (Co-op)....	4.13	1,710	.5 9	75	98	7.25	1.88	.5	12-14	S	19	—	4.5	4.5	3.5	4.0
Snowbelle (SE) (Asgrow)	3.63	2,337	.30	91	90	6.25	1.65	.5	14-16	SC	12	56	4.0	4.0	3.0	3.5
XPH 2574 (Asgrow)	3.38	1,467	.44	63	85	6.75	1.55	.5	14-16	S	13	49	4.0	3.5	3.0	3.0
Silverado (SE) (Harris)	3.00	2,552	.32	92	90	7.00	1.70	.5	12-14	SC	12	55	3.5	3.0	2.5	3.0
Super sweet																
Summer Sweet 7200 (A&C)	3.73	1,656	.5 2	70	90	7.75	1.78	.5	14-16	SC	11	47	4.0	3.5	3.5	4.0
Sweet Belle (Asgrow)	3.88	2,325	.42	88	93	7.25	1.68	.5	14-16	SC	20	62	4.0	4.0	3.5	4.0
Seneca Sentry (SE) (Roberson)	3.75	1,644	.5 3	88	93	8.00	1.78	.5	16-18	SC	20	60	4.0	3.5	3.5	4.0
Summer Sweet7700(A&C)	3.75	2,098	.43	76	93	7.50	1.65	.5	16-18	SC	19	56	4.0	3.5	3.5	4.0
Florida Staysweet (Ill. Fd. Seed)	3.63	2,030	.44	78	93	7.25	1.65	.5	14-16	SC	17	55	4.0	3.5	3.5	3.5
Pinnacle (Harris)	3.63	1,690	.47	95	85	8.25	1.65	.75	14-16	S	13	59	4.5	3.5	3.0	3.5
Summer Sweet7600(A&C)	3.63	1,656	.5 0	91	89	7.25	1.63	.5	12-14	SC	12	49	4.5	3.0	3.5	3.5
Summer Sweet6700(A&C)	3.55	1,437	.5 3	81	82	7.50	1.63	1.00	12-14	SC	13	56	4.0	3.3	3.4	3.5
X82 (Ill. Fd. Seed)	3.55	1,966	.5 1	89	85	7.50	1.85	.75	12-14	SC	13	54	4.0	3.3	3.4	3.5
Summer Sweet 8601W(A&C)	3.38	1,848	.42	98	89	7.25	1.68	.75	16-18	SC	16	69	4.0	3.5	3.0	3.0
I (Ill. Fd. Seed)	3.00	2,045	.47	72	93	7.25	1.80	.5	14-16	SC	15	56	3.0	3.0	3.0	3.0

[1] Soil test: P = 44 (M), K = 160 (H), pH = 5.7.
[2] Performance index = an average of quality, tip cover, and eye appeal. Numbers in column should be referred to footnote 3 for conversion.
[3] Rating index: 5 = excellent, 4 = good, 3 = fair, 2 = poor, 1 = very poor.
[4] S = straight, SC = slightly curved

TABLE 15. SWEET CORN VARIETY TRIAL, CROSSVILLE, 1986[1]

Variety and seed source	Performance index[2]	Ears/ acre	Ear wt.	Plant pop. x 1,000	Plants with mkt. ears	Days to harvest	Ear lgth.	Ear dia.	Cob dia.	Kernel rows	Row shape[4]	Ear set ht.	Plant ht.	Quality index[3]	Tip cover[3]	Ear fill	Eye appeal[3]
		Doz.	*Lb.*		*Pct.*	*No.*	*In.*	*In.*	*In.*	*No.*		*In.*	*In.*				
Yellow																	
Dandy (BC)(Asgrow)	4.60	1,482	0.63	27.4	73	81	7.34	1.80	1.03	14	SC	24	82	4.38	5	4.63	4.38
XPH 2572 (Asgrow)	4.56	1,180	.66	23.2	61	84	7.13	1.69	.98	14	S	22	78	3.25	5	5	5
Captain (Asgrow)	4.35	1,125	.71	25.2	58	81	7.81	1.68	1.04	14-16	SC	20	77	3.0	5	4.75	4.63
Guardian (Asgrow)	4.32	1,392	.67	25.9	64	81	7.75	1.73	1.03	14-16	SC	17	77	3.38	5	42.5	4.63
Gold Cup (Harris)	4.19	1,588	.54	27.2	70	77	6.81	1.65	1.05	16	SC	21	74	3.88	4.75	4.13	4.0
Marada (Asgrow)	4.06	1,271	.80	25.4	60	84	8.49	1.82	1.08	16	S	28	80	3.0	5	4.13	4.13
Wintergreen (Asgrow)	3.97	1,436	.66	27.2	63	79	7.25	1.69	1.03	14	SC	21	77	3.75	4.0	4.13	4.0
Apache (Asgrow)	3.94	1,089	.62	26.1	50	82	7.59	1.62	1.10	16	S	25	85	5.0	4.75	3.00	3.00
Seneca Scout (Roberson)	3.80	1,074	.67	25.2	51	81	7.01	1.68	1.05	16	SC	21	75	4.0	5.0	3.33	2.88
Bonanza (local)	3.78	1,271	.58	22.5	68	81	8.56	1.75	1.21	18	SC	24	80	4.0	5.0	3.0	3.13
Commander (Asgrow)	3.72	1,301	.74	23.9	65	81	7.78	1.72	1.16	16-18	SC	23	81	3.38	5.0	3.0	3.5
Seneca Horizon (Roberson)	3.60	1,074	.62	24.5	53	66	6.19	1.78	1.26	14-16	S	14	62	3.5	4.75	3.0	3.13
Thermal (Asgrow)	3.53	1,255	.73	23.2	65	77	8.59	1.78	1.16	16	SC	16	73	3.88	1.5	4.5	4.25
Commanche (Asgrow)	3.28	1,407	.52	27.2	62	77	7.18	1.67	1.16	14	SC	18	72	3.38	2.0	4.0	3.75
NK 199 (Asgrow)	2.88	1,165	.64	25.9	54	81	7.38	2.18	1.24	18	SC	25	89	2.88	3.0	3.13	3.25
Merit (Asgrow)	2.75	1,225	.71	28.3	52	77	8.06	1.53	1.26	18	SC	25	83	2,75	2.75	3.35	3.38
Seneca Beauty (Roberson)	2.75	1,376	.58	24.3	68	72	7.19	1.70	1.0	12	S	15	65	2.75	2.50	3.38	3.50
Seneca 258 (Roberson)	2.00	1,346	.71	25.0	65	84	8.25	1.86	1.09	16	SC	25	78	2.00	3.00	3.38	3.38
White																	
Silver Queen (local)	4.20	1,074	.68	26.4	49	81	8.13	1.64	1.03	14-16	SC	24	84	5	4.38	3.67	3.75
Snowbelle (SE)(Asgrow)	3.85	1,392	.64	24.6	68	79	7.13	1.76	1.05	14	SC	22	76	3.88	3.50	3.88	4.13
White Knight (Asgrow)	3.69	1,044	.80	22.8	55	79	9.25	1.82	1.19	16	SC	18	74	4.25	2.13	4.38	4.0
Silverado (SE) (Harris)	3.66	1,618	.63	29.5	66	79	7.56	1.78	1.06	16	SC	20	76	3.75	2.88	4.0	4.0
XPH 2574W (Asgrow)	3.36	1,104	.62	23.9	55	81	6.75	1.77	1.17	16	SC	18	74	3.88	5.0	2.88	2.75
Nonirrigated																	
XPH 2572 (Asgrow)	4.50	1,543	.62	22.1	84	76	7.19	1.69	.96	14	SC	20	74	3.38	4.75	4.88	5
XPH 2574W (Asgrow)	4.32	1,180	.54	20.3	70	72	6.81	1.73	1.05	14-16	SC	18	72	5	5	3.63	3.63
Guardian (Asgrow)	4.10	1,376	.45	21.5	77	80	7.98	1.7	1.05	14-16	SC	19	75	3.88	5	3.75	3.75
Bonanza (local)	3.94	1,331	.72	19.9	80	80	7.65	1.81	1.10	18	SC	21	78	3.88	4.88	3.38	3.63
Wintergreen (Asgrow)	3.91	1,603	.39	21.5	89	80	7.05	1.7	1.0	14	SC	18	73	3.75	3.50	4.38	4.00
Super Sweet																	
NSX (Ill. Fd. Seed)	4.44	1,255	.59	24.3	62	63	6.69	1.6	1.2	12	SC	15	56	4.5	5	4.5	3.75
Summer Sweet 7200 (A&C)	4.32	1,331	.65	22.6	70	82	7.44	1.86	1.18	16	SC	15	62	3.63	4.88	4.38	4.25
Pinnacle (Harris)	4.16	1,427	.75	20.8	83	77	8.19	1.85	.84	14-16	SC	17	71	3.75	4.38	4.38	4.13
Summer Sweet 7600 (A&C)	4.10	1,437	.69	27.0	64	70	7.13	1.76	1.16	16	SC	19	70	4.25	4.25	3.88	4.0
Landmark (Harris)	3.97	2,027	.66	26.7	91	72	7.5	1.8	1.13	12-14	SC	18	71	4.50	4.75	2.88	3.75
Sweet Belle (Asgrow)	3.66	1,558	.59	23.7	79	79	7.63	1.71	1.21	16-18	SC	21	72	5	3.25	3.25	3.13
Summer Sweet 7700 (A&C)	3.66	1,500	.52	23.7	76	81	7.93	1.77	.83	18	SC	23	70	3.88	3.38	3.75	3.63
Summer Sweet 860 1W (A&C)	3.66	1,104	.63	23.2	57	79	7.25	1.79	1.09	16-18	SC	17	74	4.75	2.88	3.50	3.50
X 82 (Ill. Fd. Seed)	3.44	1,271	.64	25.7	59	71	6.75	1.80	1.20	14	SC	18	67	3.38	4.75	2.63	3.00
Senaca Sentry (Roberson)	3.33	1,134	.58	27.9	49	81	7.20	1.68	1.05	16	SC	25	88	3.63	5	2.0	2.67
Summer Sweet 6700 (A&C)	3.10	1,271	.68	23.4	65	69	7.56	1.83	1.25	14-16	S	15	65	3.38	2.25	3.63	3.13
I (Ill. Fd. Seed)	3.07	1,316	.58	23.0	69	74	7.63	1.79	1.14	14-16	SC	22	74	3.38	2.5	2.8	3

[1] Soil test: P = 100 (M), K = 110 (M), pH = 6.1.
Planted April 22; 350 pounds 8-24-24 at planting; Dual ¾ quart and Aatrex 1 ½ quarts per acre April 23; May 28 sidedress, 120 pounds N from NH_4NO_3; plowed; June 23 sidedress, 40 pounds N from NH_4NO_3.

[2] Performance index = an average of quality, tip cover, and eye appeal. Numbers in column should be referred to footnote 3 for conversion.

[3] Rating index: 5 = excellent, 4 = good, 3 = fair, 2 = poor, 1 = very poor.

[4] S = straight, SC = slightly curved

TABLE 16. SWEET CORN VARIETY TRIAL, CULLMAN, 1986[1]

Variety and seed source	Performance index[2]	Ears/ acre	Ear wt.	Days to harvest	Ear length	Ear dia.	Cob dia.	Kernel rows	Row shape[3]	Ear set height	Plant height	Quality index[4]	Tip cover[4]	Ear fill	Eye appeal[4]
		Doz.	*Lb.*	*No.*	*In.*	*In.*	*In.*	*No.*		*In.*	*In.*				
Yellow															
Captain (Asgrow)	4.03	1,433	0.92	82	7.99	1.55	0.70	14-16	SC	24	65	3.89	4.04	—	4.15
Golden Queen (Rodgers)	3.88	1,692	.81	82	7.84	1.55	.72	14	SC	26	71	3.88	4.09	—	3.68
Royal Cup (local)	3.68	1,741	.87	82	8.54	1.52	.73	14	SC	23	69	3.70	3.78	—	3.57
Bonanza (Ferry Morse)	3.66	2,289	.70	78	8.30	1.40	.79	16	SC	24	65	3.73	3.69	—	3.57
Seneca Beauty (Roberson)	3.66	1,692	.59	72	7.60	1.51	.75	12	SC	12	51	3,48	4.50	—	2.99
Seneca Horizon (Roberson)	3.65	1,642	.66	65	7.16	1.45	.97	14	SC	12	51	2.69	5.63	—	2.63
Supreme (Harris)	3.56	1,667	.69	71	6.86	1.48	.74	14-16	S/SC	13	49	2.98	4.50	—	3.20
Commander (Asgrow)	3.52	1,244	.70	80	7.83	1.56	.73	16	SC	22	67	3.72	3.08	—	3.77
Seneca Scout (Roberson)	3.50	1,393	.73	80	7.67	1.59	.65	16	SC	20	63	3.67	3.34	—	3.50
Apache (Asgrow)	3.50	2,587	.58	78	7.29	1.40	.67	16	SC	24	65	3.93	3.02	—	3.54
Butter Sweet (local)	3.48	2,488	.65	78	7.24	1.52	.75	16-18	SC	23	67	3.68	3.17	—	3.58
Guardian (Asgrow)	3.44	2,338	.71	78	7.99	1.38	.70	16	SC	26	61	3.28	3.28	—	3.75
XPH 2572 (Asgrow)	3.44	1,903	.62	75	7.11	1.55	.63	14	SC	21	58	3.38	3.47	—	3.47
NK 199 (A&C)	3.36	2,114	.63	75	7.13	1.56	.72	12-14	SC	24	66	3.33	3.42	—	3.32
Merit (Asgrow)	3.34	2,090	.74	78	8.38	1.39	.67	14-16	SC	24	63	3.48	2.88	—	3.65
Gold Cup (Harris)	3.17	2,189	.52	75	6.98	1.42	.61	14	SC	20	56	3.10	3.39	—	3.01
Wintergreen (Asgrow)	3.16	1,990	.67	78	7.47	1.50	.76	14	SC	20	61	2.89	3.15	—	3.43
Seneca 258 (Roberson)	3.09	2,090	.66	78	8.48	1.47	.81	16	SC	23	61	3.32	2.97	—	2.99
White															
Silver Queen (local)	3.76	1,891	.70	82	7.55	1.49	.77	14	SC	30	72	3.57	3.95	—	3.76
Silverado (SE) (Harris)	3.72	2,624	.57	82	6.87	1.53	.78	16	SC	18	55	3.58	3.93	—	3.65
Snowbelle (SE) (Asgrow)	3.64	1,940	.65	78	7.59	1.49	.78	14	SC	18	64	3.65	3.58	—	3.70
White Lighting (local)	3.50	2,040	.73	82	7.44	1.58	.78	14	SC	24	70	3.54	3.47	—	3.49
XPH 2574W (Asgrow)	3.34	1,915	.65	78	7.35	1.50	.76	14	SC	20	65	3.33	3.23	—	3.45
Super Sweet															
Zenith (Harris)	3.59	1,294	.47	62	6.87	1.43	.69	16	SC	26	59	3.52	3.97	—	3.29
Pinnacle (Harris)	3.56	1,542	.57	62	7.09	1.54	.73	14-16	SC	21	58	4.07	3.10	—	3.52
Florida Staysweet (Ill. Fd. Seed)	3.52	1,592	.51	67	7.20	1.50	.73	16	SC	26	58	3.93	3.32	—	3.32
Seneca Sentry (SE) (Roberson)	3.49	1,841	.56	67	7.32	1.51	.72	16	SC	25	72	3.33	3.77	—	3.37
Sumer Sweet 7700 (A&E)	3.43	1,891	.48	67	7.93	1.50	.73	16	SC	27	58	3.87	2.87	—	3.55
NXS (Ill. Fd. Seed)	3.36	1,692	.60	60	7.73	1.48	.79	12-14	SC	15	53	3.54	3.38	—	3.15
I (Ill. Fd. Seed)	3.34	1,144	.57	63	7.43	1.52	.68	14-16	SC	33	42	3.75	2.93	—	3.33
Summer Sweet 7600 (A&C)	3.32	1,443	.49	63	6.92	1.43	.74	16	SC	23	55	3.77	3.09	—	3.10
Summer Sweet 8601W (A&C)	3.25	1,294	.46	63	7.38	1.42	.74	16-18	SC	22	59	3.97	2.69	—	3.10
Summer Sweet 6700 (A&C)	3.20	1,418	.56	60	7.33	1.56	.80	12-14	SC	17	54	3.53	3.04	—	3.03
Sweet Belle (Asgrow)	3.07	1,144	.49	62	6.83	1.49	.73	18	SC	25	61	2.95	3.30	—	2.97
Landmark (SE) (Harris)	2.86	2,289	.54	62	7.15	1.45	.78	12	SC	18	56	3.22	2.60	—	2.77
X-82 (Ill. Fd. Seed)	2.84	1,393	.66	62	6.71	1.43	.86	12	SC	17	55	2.94	2.80	—	2.78
Summer Sweet 7200 (A&C)	2.51	1,642	.55	62	7.23	1.38	.82	12	SC	18	55	2.62	2.21	—	2.69

[1] Soil test: P = 240 (VH), K = 100 (M), pH = 5.3; 2 tons limestone applied per acre.
[2] Performance index = an average of quality, tip cover, and eye appeal. Numbers in column should be referred to footnote 4 for conversion.
[3] S = straight, SC = slightly curved.
[4] Rating index: 5 = excellent, 4 = good, 3 = fair, 2 = poor, 1 = very poor.

TABLE 17. YIELDS FOR STAKED FRESH MARKET TOMATO TRIAL, FAIRHOPE, 1986[1]

Variety and seed source	Marketable yield/acre[2]				Culls					
	Total[3]	5 x 6[4]	6 x 6	6 x 7	Total	Pct. of total yield	Cracks	Cat-face	Blossom end-rot	Others[5]
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Replicated										
Jefferson PS (Petoseed)	808	270	255	283	50	6	10	63	0	27
Castlehy 105 (Castle)	785	390	239	156	56	7	0	88	0	12
Flora-Dade (Asgrow)	775	152	257	366	32	4	0	76	0	24
Sunny (Asgrow)	775	312	263	200	74	9	7	77	0	16
Castlehy 1035 (Castle)	759	338	226	195	42	5	0	78	5	17
Mountain Pride (Castle)	744	245	211	288	39	5	8	74	0	18
Pacific (Asgrow)	741	487	163	91	41	5	0	71	7	22
Pole Boy 83 (Twilley)	731	353	215	163	44	6	4	61	0	35
Monte Carlo VFN (Petoseed)	719	306	194	219	69	9	12	72	7	9
Bonnie Nematode Resistant (Bonnie Farms)	717	169	274	274	137	16	2	92	0	6
Liberty Hybrid (Twilley)	714	186	236	292	67	9	0	87	0	13
724 Hybrid (Asgrow)	703	329	192	182	31	4	0	79	0	21
Better Boy VFN (Petoseed)	702	481	143	78	102	13	4	73	3	20
Four Way Hybrid (Four Way Farms)	700	362	188	150	54	7	7	85	0	8
Celebrity (Petoseed)	695	403	186	106	41	6	0	79	0	21
XPH 5031 (Asgrow)	651	330	162	159	43	6	0	64	4	32
Piedmont (NCSU)	631	362	140	129	33	5	6	81	0	13
Independence Hybrid (Twilley)	598	357	143	98	55	8	6	76	0	18
Observational										
ATH-86-4458 (Auburn U.)	829	14	39	776	10	1	0	85	0	15
ATH-86-8X6 (Auburn U.)	744	181	252	311	59	7	2	80	0	18
Castlehy 1079 (Castle)	644	240	180	224	45	7	3	79	7	11
ATH-86-35-11 (Auburn U.)	503	11	9	483	4	1	0	67	0	33
Salad-7117 (U. of Florida)	397	0	0	0	0	0	0	0	0	0
Salad-7143 (U. of Florida)	387	0	0	0	0	0	0	0	0	0

[1] Soil test: P = 190 (VH); K = 130 (H); pH = 6.2.
[2] Size yields reported here are in accordance with the size standards established by the USDA for the Los Angeles type lug arrangements.
5 x 6 arrangement: minimum diameter 2 11/16 inches, maximum diameter 3 3/16 inches.
6 x 6 arrangement: minimum diameter 2 8/16 inches, maximum diameter 2 14/16 inches.
6 x 7 arrangement: minimum diameter 2 4/16 inches, maximum diameter 2 10/16 inches.
[3] While fruit were graded as carefully as possible under field conditions, no rigid effort was made to grade for a U.S. No. 1 grade. Fruit were separated for cull conditions as reported here.
[4] Some fruit in this size arrangement were larger than standard sizes.
[5] Others were mostly tomatoes too small to be marketed in the above sizes. Some were culled because of rots, insect damage, mechanical damage, and misshapen fruit.

TABLE 18. HARVEST DATES FOR STAKED FRESH MARKET TOMATO TRIALS, FAIRHOPE, 1986

Variety and seed source	Harvest dates[1]													
	5/30	6/2	6/5	6/9	6/13	6/16	6/19	6/23	6/26	6/30	7/3	7/7	7/10	7/14
Replicated														
Jefferson PS (Petoseed)										X	X	X		
Castlehy 105 (Castle)									X	X	X	X		
Flora-Dade (Asgrow)										X	X			
Sunny (Asgrow)								X		X				
Castlehy 1035 (Castle)					X					X				
Mountain Pride (Castle)										X	X	X		
Pacific (Asgrow)								X	X	X				
Pole Boy 83 (Twilley)										X	X	X		
Monte Carlo VFN (Petoseed)								X	X	X		X		
Bonnie Nematode Resistant (Bonnie Farms)								X	X	X				
Liberty Hybrid (Twilley)								X	X	X				
724 Hybrid (Asgrow)					X			X	X	X				
Better Boy VFN (Petoseed)								X		X	X			
Four Way Hybrid (Four Way Farms)										X		X		
Celebrity (Petoseed)										X				
XPH 5031 Hybrid (Asgrow)					X					X				
Piedmont (NCSU)										X	X	X		
Independence Hybrid (Twilley)					X									
Observational														
ATH-86-44-58 (Auburn U.)							X	X	X	X				
ATH-86-8x6 (Auburn U.)								X	X	X				
Castlehy 1079 (Castle)										X				
ATH-86-35-11 (Auburn U.)								X						
Salad-7117 (U. Florida)						X	X							
Salad-7143 (U. Florida)				X	X									

[1] X indicates peak harvest date, the date at which the highest yield occurred. In some varieties, highest yield was approximately the same for two or more harvest dates.

TABLE 19. PLANT HEIGHT AND FRUIT CHARACTERISTICS OF TOMATO VARIETIES, FAIRHOPE, 1986

Variety and seed source	Plant height	Fruit characteristics				Eye appeal[3]	Suggested use[4]
		Color	Shape[1]	Firmness[2]	Jointless		
	In.						
Replicated							
Jefferson PS (Petoseed)	48	red	2	3		2	1
Castlehy 105 (Castle)	47	red	2	1		1	3
Flora-Dade (Asgrow)	31	red	2	1	X	1	3
Sunny (Asgrow)	34	red	2	2		1	3
Castlehy 1035 (Castle)	31	red	2	1	X	1	3
Mountain Pride (Castle)	32	red	2	2		1	1-2-3
Pacific (Asgrow)	32	red	2-3	1		2	3
Pole Boy 83 (Twilley)	43	red	2	2		1	1-2
Monte Carlo VFN (Petoseed)	49	red	2	3		1	1-2
Bonnie Nematode Resistant (Bonnie Farms)	30	red	2	3		1	1
Liberty Hybrid (Twilley)	35	red	2	1	X	2	1-2
724 Hybrid (Asgrow)	30	red	2	1	X	1	3
Better Boy VFN (Petoseed)	51	red	2	3		2	1-2
Four Way Hybrid (Four Way Farms)	50	red	1	1		1	3
Celebrity (Petoseed)	30	red	2-3	1		1	3
XPH 5031 (Asgrow)	30	red	5	1	X	1	3
Piedmont (NCSU)	32	red	1	1		1	3
Independence Hybrid (Twilley)	24	red	5	2	X	2	1-2
Observational							
ATH-86-4458 (Auburn U.)	52	red	5	2		2	1-2
ATH-86-8x6 (Auburn U.)	44	red	3	2		3	1-2
Castlehy 1079 (Castle)	28	red	5	1	X	2	1-2
ATH-86-35-11 (Auburn U.)	27	red	5	2		2	1-2
Salad - 7117 (U. Florida)	23	red	1	1	X	1	1-2-3
Salad - 7143 (U. Florida)	27	red	1	1	X	1	1-2-3

[1] Shape rating: 1 = globe, 2 = deep globe, 3 = oblate, 4 = deep oblate, 5 = mixed.
[2] Firmness rating: 1 = very firm, 2 = firm, 3 = soft.
[3] Appearance rating: 1 = smooth, 2 = slightly rough, 3 = rough.
[4] Use rating: 1 = home garden, 2 = roadside and other direct marketing, 3 = commercial shipping.

TABLE 20. YIELDS FOR STAKED FRESH MARKET TOMATO TRIAL, CLANTON, 1986[1]

Variety and seed source	Marketable yield/acre[2]				Culls					
	Total[3]	5 x 6[4]	6 x 6	6 x 7	Total	Pct. of total yield	Cracks	Cat-face	Blossom end-rot	Others[5]
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Irrigated										
Sunny VF_2(Asgrow)	618	320	216	82	111	15	29	11	14	46
Hayslip VF_2 J_2 (A & C)	608	268	218	122	171	22	38	12	17	33
President VF_2N TMV (Petoseed)	497	314	137	46	122	20	37	13	8	42
Celebrity VF_2N TMV (Twilley)	491	300	141	50	176	26	64	6	3	27
Monte Carlo VFN (Petoseed)	471	216	169	86	163	26	51	7	6	36
Mountain Pride VF_2 (Castle)	470	151	191	128	135	22	25	6	20	69
Piedmont VF_2 (NCSU)	470	181	174	115	123	21	23	6	11	60
Four Way Hybrid (Four Way Farms)	466	186	161	119	147	24	60	2	12	26
ATH-86-6X5 VF (Auburn U.)	384	166	151	67	164	30	57	5	12	26
Bonnie Nematode Resistant (Bonnie Farms)	375	138	148	89	174	32	30	10	13	47
Nonirrigated										
Sunny VF_2 (Asgrow)	384	163	145	76	124	24	13	14	11	62
Mountain Pride VF_2 (Castle)	357	91	153	113	105	23	26	6	13	55
Celebrity VF_2N TMV (Twilley)	314	154	114	46	101	24	33	5	12	50
Four Way Hybrid VF (Four Way Farms)	306	95	113	98	106	26	21	4	14	61
Hayslip VF_2 J_2 (A & C)	301	88	125	88	146	33	18	2	13	61
President VF_2N TMV (Petoseed)	286	127	106	53	102	26	16	11	12	61
ATH-86-6XF VF (Auburn U.)	277	89	109	79	89	24	31	6	11	52
Monte Carlo VFN (Petoseed)	271	92	111	68	139	34	20	3	11	66
Bonnie Nematode Resistant (Bonnie Farms)	240	50	111	79	123	34	14	3	8	75
Piedmont VF_2 (NCSU)	239	60	112	67	121	34	13	1	16	70

[1] Soil test: P = 250 (VH), K = 150 (H), pH = 5.9; 1 ton limestone applied per acre.
[2] Size yields reported here are in accordance with the size standards established by the USDA for the Los Angeles type lug arrangements.
5 x 6 arrangement: minimum diameter 2 11/16 inches, maximum diameter 3 3/16 inches.
6 x 6 arrangement: minimum diameter 2 8/16 inches, maximum diameter 2 14/16 inches.
6 x 7 arrangement: minimum diameter 2 4/16 inches, maximum diameter 2 10/16 inches.
[3] While fruit were graded as carefully as possible under field conditions, no rigid effort was made to grade for a U.S. No. 1 grade. Fruit were separated for cull conditions as reported here.
[4] Some fruit in this size arrangement were larger than standard sizes.
[5] Others were mostly tomatoes too small to be marketed in the above sizes. Some were culled because of rots, insect damage, mechanical damage, and misshapen fruit.

TABLE 21. HARVEST DATES FOR STAKED FRESH MARKET TOMATO TRIAL, CLANTON, 1986

Variety and seed source	Harvest dates[1]								
	9/29	10/1	10/3	10/6	10/8	10/13	10/27	10/29	11/3
Irrigated									
Sunny VF_2 (Asgrow)						X		X	X
Hayslip VF_2 J_2 (A & C)						X		X	X
President VF_2N TMV (Petoseed)	X								
Celebrity VF_2 TMV (Twilley)						X		X	
Monte Carlo VFN (Petoseed)									X
Mountain Pride VF_2 (Castle)									X
Piedmont VF_2 (NCSU)									X
Four Way Hybrid VF (Four Way Farms)						X			X
ATH-86-6x5 VF (Auburn U.)						X			
Bonnie Nematode Resistant (Bonnie Farms)					X				
Nonirrigated									
Sunny VF_2 (Asgrow)				X					
Mountain Pride VF_2 (Castle)									X
Celebrity VF_2N TMV (Twilley)						X			
Four Way Hybrid VF (Four Way Farms)						X			
Hayslip VF_2 J_2 (A & C)						X			
President VF_2N TMV (Petoseed)	X								
ATH-86-6x5 VF (Auburn U.)						X			
Monte Carlo VFN (Petoseed)	X								
Bonnie Nematode Resistant VFN (Bonnie Farms)	X								
Piedmont VF_2 (NCSU)						X			

[1] X indicates peak harvest date, the date at which the highest yield occurred. In some varieties, highest yield was approximately the same for two or more harvest dates.

TABLE 22. YIELDS FOR STAKED FRESH MARKET TOMATO TRIAL, CULLMAN, 1986[1]

Variety and seed source	Marketable yield/acre[2]				Culls					
	Total[3]	5 x 6[4]	6 x 6	6 x 7	Total	Pct. of total yield	Cracks	Cat-face	Blossom end-rot	Others[5]
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Replicated										
President VF_2N TMV (Petoseed)	513	207	262	44	51	9	0	36	4	60
Ole VF_2 (Harris)	510	200	250	6	71	12	0	38	6	56
Sunny VF_2 (Asgrow)	491	134	275	82	86	15	0	36	2	62
Celebrity VF_2N TMV (Twilley)	475	218	201	56	32	6	0	22	7	71
All Star (Petoseed)	461	107	269	85	94	17	0	22	0	78
Carmen VF_2N TMV (Petoseed)	430	224	168	38	60	12	6	33	6	55
Castlehy 105 VF_2 (Castle)	426	141	211	74	62	13	5	23	2	70
Cavalier VF_2N TMV (Petoseed)	418	223	165	30	80	16	4	53	9	34
Pacific (Asgrow)	410	176	184	50	52	11	0	28	3	69
ATH-86-58X6VF (Auburn U.)	404	97	226	81	82	17	0	22	2	76
Monte Carlo VFN (A & C)	394	133	201	60	56	12	0	17	5	78
724 Hybrid (Asgrow)	392	79	323	90	64	14	0	9	3	88
ATH-86-8X6 VF (Auburn U.)	389	82	215	92	108	22	2	10	2	86
NC 84100 (NCSU)	372	114	203	55	46	11	0	20	5	75
NC 8322 (NCSC)	370	74	216	80	81	18	2	9	0	89
Fresh Pak VFN (Harris)	368	114	196	58	77	17	0	14	5	81
Bonnie Nematode Resistant VFN (Bonnie Farms)	363	42	220	101	126	26	2	10	2	86
Four Way Hybrid VF (Four Way Farms)	358	115	188	55	48	12	1	19	3	77
Mountain Pride VF_2 (Castle)	337	99	177	61	59	15	0	13	0	87
Flora-Dade VF_2 (A & C)	315	46	172	97	114	27	0	9	2	89
Piedmont (NCSU)	300	93	158	49	61	17	0	12	2	86
5031 Hybrid (Asgrow)	298	70	164	64	57	16	0	21	7	72
Hayslip VF_2 (A & C)	292	49	173	70	94	24	0	13	5	82
PSXM17180 (Petoseed)	291	45	174	72	96	25	3	15	4	78
Jefferson PS (Petoseed)	272	35	156	81	143	34	0	8	1	91
PSX 1994 (Petoseed)	255	21	152	82	262	51	2	24	0	74
ATH-86-35X11 VF (Auburn U.)	214	29	80	105	217	50	0	1	1	98
Salad NC 8642 (NCSU)	375	0	0	0	0	0	0	0	0	0

[1] Soil test: P = 240 (VH), K = 110 (H), pH = 5.3; 2 tons limestone applied per acre.
[2] Size yields reported here are in accordance with the size standards established by the USDA for the Los Angeles type lug arrangements.
5 x 6 arrangement: minimum diameter 2 11/16 inches, maximum diameter 3 3/16 inches.
6 x 6 arrangement: minimum diameter 2 8/16 inches, maximum diameter 2 14/16 inches.
6 x 7 arrangement: minimum diameter 2 4/16 inches, maximum diameter 2 10/16 inches.
[3] While fruit were graded as carefully as possible under field conditions, no rigid effort was made to grade for a U.S. No 1. grade. Fruit were separated for cull conditions as reported here.
[4] Some fruit in this size arrangement were larger than standard sizes.
[5] Others were mostly tomatoes too small to be marketed in the above sizes. Some were culled because of rots, insect damage, mechanical damage, and misshapen fruit.

TABLE 23. HARVEST DATES FOR STAKED FRESH MARKET TOMATO TRIAL, CULLMAN, 1986

Variety and seed source	Harvest dates[1]						
	7/8	7/11	7/15	7/18	7/22	7/25	7/29
Replicated							
President VF_2N TMV (Petoseed)			X	X			X
Ole VF_2 (Harris)					X	X	X
Sunny VF_2 (Asgrow)					X		X
Celebrity VF_2 TMV (Twilley)						X	X
All Star (Petoseed)					X	X	X
Carmen (Petoseed)						X	X
Castlehy 105 VF_2 (Castle)					X	X	
Cavalier VF_2N TMV (Petoseed)						X	X
Pacific (Asgrow)					X		X
ATH-86-58x6 VF (Auburn U.)					X	X	X
Monte Carlo VFN (A & C)						X	X
724 Hybrid (Asgrow)					X	X	X
ATH-86-8x6 VF (Auburn U.)				X	X		
NC 84100 (NCSU)						X	X
NC 8322 (NCSU)					X	X	
Fresh Pak VFN (Harris)						X	
Bonnie Nematode Resistant (Bonnie Farms)							X
Four Way Hybrid (Four Way Farms)					X	X	X
Mountain Pride VF_2 (Castle)						X	
Flora-Dade VF_2 (Castle)						X	
Piedmont (NCSU)						X	X
5031 Hybrid (Asgrow)						X	
Hayslip VF_2 (A & C)						X	
PSX M17180 (Petoseed)					X		
Jefferson PS (Petoseed)					X		
PSX 1994 (Petoseed)				X			
ATH-86-35X11 VF (Auburn U.)					X		
Salad NC 8642 (NCSU)					X		

[1] X indicates peak harvest date, the date at which the highest yield occurred. In some varieties, highest yield was approximately the same for two or more harvest dates.

TABLE 24. PLANT HEIGHT AND FRUIT CHARACTERISTICS OF TOMATO VARIETIES, CULLMAN, 1986

Variety and seed source	Plant height	Fruit characteristics				Eye appeal[3]	Suggested use[4]
		Color	Shape[1]	Firmness[2]	Jointless		
	In.						
Replicated							
President VF_2N TMV (Petoseed)	41	red	2	3		3	2-3
Ole VF_2 (Harris)	36	red	2	2		1	1-2
Sunny VF_2 (Asgrow)	42	red	2-3	2		1	3
Celebrity VF_2N TMV (Twilley)	42	red	2	2		1	3
All Star (Petoseed)	47	red	2	1		2	3
Carmen (Petoseed)	51	red	2-3	2		1	2-3
Castlehy 105 VF_2 (Castle)	51	red	2	2		2	2-3
Cavalier VF_2N TMV (Petoseed)	48	red	5	3		2	1-2
Pacific Hybrid (Asgrow)	44	red	2	2		1	3
ATH-86-8x6 VF (Auburn U.)	60	red	3	3		1	1-2
Monte Carlo VFN (A & C)	60	red	2	3		2	1-2
724 Hybrid (Asgrow)	40	red	1	1	X	1	3
ATH-86-58x6 VF (Auburn U.)	52	red	3	2		1	2-3
NC 84100 (NCSU)	38	red	2	3		1	1
NC 8322 (NCSU)	46	red	1-2	2		1	3
Fresh Pak VFN (Harris)	45	red	3	2		3	1
Bonnie Nematode Resistant (Bonnie Farms)	40	red	2-3	3		1	1
Four Way Hybrid VF (Four Way Farms)	54	red	2	1		2	3
Mountain Pride VF_2 (Castle)	48	red	2	2		1	3
Flora-Dade VF_2 (Petoseed)	46	red	2	1	X	1	3
Piedmont (NCSU)	48	red	2	1		1	3
5031 Hybrid (Asgrow)	49	red	2	2	X	1	2-3
Hayslip VF_2 (A & C)	38	red	2	1	X	2	3
PSX M17180 (Petoseed)	38	red	1	1	X	1	3
Jefferson PS (Petoseed)	52	red	3	3		2	1
PSX 1994 (Petoseed)	27	red	3	2	X	3	1-2
ATH-86-35X11 VF (Auburn U.)	46	red	3	2		3	2-3
Salad NC 8642 (NCSU)	40	red	1	1	X	1	1-2-3

[1] Shape rating: 1 = globe, 2 = deep globe, 3 = oblate, 4 = deep oblate, 5 = mixed.
[2] Firmness rating: 1 = very firm, 2 = firm, 3 = soft.
[3] Appearance rating: 1 = smooth, 2 = slightly rough, 3 = rough.
[4] Use rating: 1 = home garden, 2 = roadside and other direct marketing, 3 = commercial shipping.

Information contained herein is available to all persons regardless of race, color, sex, or national origin.