

Vegetable Variety Trials¹ 1977

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VEGETABLE VARIETY and breeding line³ trials were conducted during 1977 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 E. V. Smith Research Center, Milstead. All trials were conducted in randomized replicated plots with recommended fertilizer rates and applications for each crop and location. Non-replicated observational plantings were also made of selected varieties and lines of sweetpotato and tomato. Insect and disease control measures were applied on a regular schedule throughout the growing season with irrigation applied, where available, when needed. Summaries of results are reported in this publication.

RESULTS

Cabbage (Cullman)

Seed were planted February 12 and transplanted April 13. Plants were spaced 15 inches apart in 44-inch rows. Growing conditions were favorable and head splitting was not a problem. Rio Verde and Headstart marketable yields were significantly higher than the other entries, table 1. Headstart produced heads with more uniformity than Rio Verde. Rio Verde had the highest variability in head size distribution. For early cutting, Headstart and Market Victor produced high yields early. Express produced the most uniform heads of the green varieties and Red Danish had the most uniform heads of the red varieties. Rio Verde made the largest heads and the Red Danish the smallest. Rio Verde, Market Topper, Jackpot, Little Rock, Stonehead, and Red Danish produced the most compact heads. Roundup, Green Boy, Market Topper, Little Rock, Market Prize, and Stonehead produced round heads. Other varieties had heads that were flat to oval.

Pickling Cucumbers (Milstead)

Seed were planted April 25 for the spring crop and August 15 for the fall crop and spaced 6 inches apart in

¹ Data presented in this publication are a true evaluation of each entry. Variety, company, and chemical names are used for identification and do not imply endorsement of one over the other.

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³ Seed of breeding lines are not available for planting until named and released.



40-inch rows. Nine harvests were made for the spring crop, beginning June 13 and ending July 11. For the fall crop, six harvests were made beginning September 26 and ending October 13. Explorer, Panorama, Calypso, and Bounty were the highest yielding named varieties in the spring trial, table 2. Explorer and Calypso are two of the leading commercial varieties in Alabama. Bounty, a black spine type, is generally not acceptable to Alabama processors due to its early development of yellow pigment. Carolina, a widely grown variety, produced a good yield of marketable cucumbers. NCSU-76-G30 produced the longest fruit and XP 808 had the shortest. NCSU-77-G27 has an attractive dark green color with a good L/D ratio. Carpel separation was highest in line XP 1152. Fall yields were lower than yields in the spring trial, because of the shorter growing season, table 3. TX 377 had the largest L/D ratio and Explorer had the smallest. Triple Cross had the highest carpel separation.

Potatoes (Fairhope and Crossville)

Seed potatoes for the 1977 trials were obtained from Frito-Lay Company, of Baldwin County, Alabama, Michigan, Minnesota, North Dakota, South Dakota, Starks Farms, USDA, and the University of Wisconsin. Seed were brought to Auburn and stored at 40° F. until planting time. Seed pieces were cut to approximately 1½ ounces each and dipped for 1 minute in a solution containing 8 ounces of Mertect 340-F in 7½ gallons of water, dried, calloused, and presprouted at 55° F. for approximately 2 weeks. Planting date was February 23 at Fairhope and March 10 at Crossville. Seed pieces were planted at Fairhope with a hand operated planter in 38-inch rows and at Crossville by hand in 42-inch rows. Seed pieces were spaced 12 inches in the drill at both locations. At Fairhope, Red La Soda was the highest yielding variety, table 4. Yields were similar for the three sources of Red La Soda seed. Frito-Lay 795 was the highest yielding white variety. Sebago, FL-162, Norchip, La Rouge, Atlantic, FL-657, and La Chipper also produced good yields. Wisconsin 738 was the highest yielding potato from the University of Wisconsin. B 6987-29, a sister line of Atlantic, was the highest yielding line from the USDA. All varieties produced a high percentage of size A potatoes. Two lines, B 7768-4 and B 7618-6, produced 100 percent size A potatoes. Potatoes of Atlantic, the USDA variety, had the highest specific gravity. Seed sprouting was good to excellent at Fairhope.

Red La Soda was also the highest yielding variety in the Crossville trial, table 5. Weather conditions at Crossville were adverse for the latter half of the growing season, with occasional temperatures above 100° F. and daily temperatures regularly in the high 90's during June. The ability of Red La Soda to withstand adverse

weather is apparent. Frito-Lay 723 is also a good potato for hot dry soils. Atlantic did not yield as well as in the past but has the ability to produce high solids potatoes. Seed sprouting was good to excellent for all varieties except FL-657. The low stand count cannot be explained. Norchip and Superior from the different sources consistently produce 100 percent stands. Red La Soda, Superior, Atlantic, and FL-162 rated high for eye appeal.

Sweetpotatoes (Auburn, Fairhope, Clanton, and Cullman)

Varieties and breeding lines were obtained from breeders in February and stored at 55° F. Along with the varieties already on hand. Seed were presprouted at 85° F. and approximately 90 percent humidity for 2 weeks, treated with 8 ounces of Mertect 340-F plus 1 pound of 75W Botran in 7½ gallons of water for 1 minute, and placed in electric heated beds. Roots of some new introductions are limited; therefore, the number of plants produced was not sufficient for planting at all locations.

Plants were set by hand, April 29 at Fairhope, May 19 at Milstead, June 10 at Clanton, and May 17 at Cullman. Spacing of plants was 12 inches apart in 38-inch rows at Fairhope and in 44-inch rows at other locations.

At Milstead, yields were mixed for the various grades and perhaps reflect the hot and dry conditions there in May and June, table 7. LO-323 and VPO-322 produced the highest total marketable yields, while L4-112 made the highest percentage of No. 1 roots. Jasper produced the highest yield of canners and LO-323 the highest yield of Jumbos.

At Fairhope, Centennial made the highest yield of total marketable, No. 1's, and canners. Porto Rico produced the highest percent of No. 1 roots. Jewel had the highest yield of Jumbos.

At Clanton, Rojo Blanco, a white flesh variety, produced the highest percent of No. 1 roots, while Red Jewel and Centennial produced the highest yield of No. 1 size. Ti-1895 had the highest yield of canners and Rojo Blanco the highest yield of Jumbos.

At Cullman, Carver and NC-172 produced the highest total marketable yields, table 8. NC-172 produced the highest percent and yield of No. 1 size. Carver and Ti-1894 had the highest yield of canners and Rojo Blanco the highest yield of Jumbos. Carver and Jasper are new releases that have attractive skin color. Jasper is resistant to soil rot. Rojo Blanco, released by Tuskegee Institute primarily for markets interested in white flesh types with high dry matter, is generally rough in appearance and has only fair shape. NC-172 is grown extensively in the Cullman area and is referred to by local names. This line produces high yields of attractive roots that have poor eating quality.

Fresh Market Tomatoes (Clanton, Cullman, and Fairhope)

Tomato seed were planted in the greenhouse February 3 for Fairhope and Clanton and March 30 for Cullman. Plants were transplanted April 7 at Fairhope, April 20 at Clanton, and May 17 at Cullman. Plants were spaced 15 inches apart in 5-foot rows at Fairhope and Cullman. At Clanton, rows were spaced 8 feet. Plants were pruned and staked to a two-leader system at Fairhope; the binder twine trellis method was used for staking at Clanton and Cullman.

At Clanton, six harvests were made beginning June 28 and ending August 2. Weather conditions during May, June, and the first half of July were adverse for good tomato production, with daytime temperatures averaging in the 90's. Poor fruit set and development are reflected in the fair to poor marketable yields in the Clanton trial, table 9. Pink Delight produced the highest marketable yield and AU 72-5 produced the lowest. Super Red Hybrid, Better Boy VFN, and Pink Delight had the highest yields of 5X6 fruits. Traveler produced the highest yield of 6X6 and 6X7 fruits. Yields of cull fruits were much higher than normal in 1977. While the bulk of the culls were small, some were culls because of fruit disorders. Blossom-end rot was a serious problem on most of the varieties. Florida-developed varieties Homestead 24, Walter, and Floradel, were among those least affected by this disorder. Saturn also has a high tolerance to blossom-end rot.

At Cullman, 12 harvests were made beginning July 14 and ending August 29. Yields were fair to good, with Super Red Hybrid producing the highest yield of marketable tomatoes, table 10. Hybrid 980 and Big Girl VF Hybrid also made good yields. Big Girl VF Hybrid produced the highest yield of 5X6 fruits, with Auburn 76 FMN and Saturn having low yields of this size fruits. Spring Set Hybrid produced no 5X6 fruits and low yields of other marketable sizes. Hybrid 980 produced the highest yields of 6X6 fruits and Auburn 76 FMN the highest yields of 6X7 fruits. Culls were about normal for the Cullman trial. AU 66-25 produced the highest percent of culls and Big Girl VF Hybrid the lowest.

At Fairhope, 10 harvests were made beginning June 9 and ending July 15. Yields were excellent for most varieties and well above yields of the previous year. AU 76 FMN produced the highest yield of marketable fruit, with approximately three-fourth of it in the 6X6 and 6X7 sizes. AU F5-Tropic XSL breeding line was the second highest yielding, and approximately three-fourth of its marketable yield was 5X6 and 6X6 sizes. Tropic produced the highest yield of 5X6 fruits. Better Boy VFN, Wonder Boy VF, and Monte Carlo VFN were the next three highest yielding of 5X6 fruits. Marketable yields of Beefmaster Hybrid were low due to poor fruit shape. This variety, at best, could only be a garden tomato. Percent culls were generally lower than in 1976. Catfacing accounted for the highest percent of cull fruits. Five varieties were free of cracks.

TABLE 1. CABBAGE VARIETY TRIAL, CULLMAN, SPRING 1977¹

| Variety and seed source | Marketable yield/acre | Mean head weight | Uniformity of heads ² | Growing days | Harvest season ³ | Color ⁴ | Harvest | Head diameter | Head length | Core length | Core width | Firmness ⁵ | Shape ⁶ |
|-----------------------------|-----------------------|------------------|----------------------------------|--------------|-----------------------------|--------------------|------------|---------------|-------------|-------------|------------|-----------------------|--------------------|
| | <i>Cwt.</i> | <i>Lb.</i> | <i>Lb.</i> | <i>No.</i> | | | <i>No.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | | |
| Rio Verde (NK) | 451.91 | 4.66 | ± 1.46 | 71 | M | LG | 1 | 6.94 | 5.77 | 3.32 | 1.36 | C | F |
| Headstart (Asgrow) | 449.52 | 4.51 | ± .77 | 61 | E | G | 1 | 6.41 | 6.78 | 3.41 | 1.36 | L | R-O |
| Roundup (Twilley) | 388.46 | 4.34 | ± 1.42 | 71 | M | G | 1 | 6.33 | 6.34 | 3.75 | 1.57 | L | R |
| Market Victor (Harris) ... | 368.35 | 3.70 | ± 1.24 | 61 | E | G | 1 | 5.97 | 6.24 | 2.59 | 1.29 | L | R-O |
| Headmaster | | | | | | | | | | | | | |
| (Ferry-Morse) | 361.58 | 4.04 | ± 1.23 | 71 | M | G-LG | 1 | 6.34 | 6.20 | 3.65 | 1.56 | L | F-O |
| Early Harvest (Twilley) .. | 347.99 | 3.68 | ± 1.07 | 71 | M-L | LG | 1 | 6.03 | 6.11 | 3.43 | 1.50 | L-C | O |
| Ferry Early Round Dutch | | | | | | | | | | | | | |
| (Ferry-Morse) | 346.04 | 3.56 | ± 1.06 | 71 | M-L | G | 1 | 5.76 | 6.12 | 3.04 | 1.37 | L-C | O |
| Green Boy (NK) | 336.01 | 3.46 | ± .93 | 61 | E-M | G | 1 | 5.93 | 5.99 | 2.80 | 1.35 | L | R |
| King Cole (Harris) | 333.27 | 3.35 | ± 1.09 | 61 | E-M | G | 1 | 5.92 | 6.11 | 3.06 | 1.40 | L | O |
| Jet Pak (NK) | 330.39 | 3.32 | ± .76 | 61 | E | G | 1 | 5.49 | 6.12 | 3.04 | 1.27 | L-C | O |
| Market Topper (Harris) .. | 315.30 | 3.09 | ± .91 | 61 | E-M | G | 1 | 5.56 | 5.22 | 3.00 | 1.23 | C | R |
| Express (Asgrow) | 314.93 | 3.24 | ± .64 | 61 | E-M | G | 1 | 5.46 | 5.87 | 3.41 | 1.50 | L-C | R-O |
| Jackpot (Niagara) | 304.28 | 3.06 | ± 1.00 | 61 | E-M | G | 1 | 5.56 | 5.10 | 2.95 | 1.19 | C | F |
| Greenback (Asgrow) | 297.51 | 3.06 | ± .94 | 71 | M-L | G-LG | 1 | 5.75 | 5.80 | 3.27 | 1.38 | L | O |
| Little Rock (Twilley) | 294.99 | 3.20 | ± .82 | 71 | M | LG | 1 | 5.47 | 5.89 | 2.79 | 1.22 | C | R |
| Market Prize (Harris) | 293.35 | 3.02 | ± .71 | 61 | E | G-LG | 1 | 5.66 | 5.46 | 3.27 | 1.25 | L-C | R |
| Red Acre (Stokes) | 252.48 | 2.90 | ± .93 | 61 | E | Red | 1 | 5.14 | 6.17 | 3.27 | 1.21 | L | O-P |
| Stonehead (NK) | 247.50 | 2.49 | ± .67 | 61 | E | G | 1 | 5.14 | 5.10 | 1.99 | 1.37 | C | R |
| Enterprize (Asgrow) | 247.30 | 2.48 | ± .67 | 61 | E-M | G | 1 | 5.03 | 5.35 | 2.63 | 1.31 | L-C | O |
| Red Danish (Stokes) | 174.99 | 2.13 | ± .66 | 71 | M-L | Red | 1 | 4.79 | 5.15 | 2.95 | 1.47 | C | O |

¹ Soil test: P = 270(VH); K = 140(H); pH = 6.2.

² Standard deviation.

³ E = early; M = medium; L = late.

⁴ G = green; LG = light green.

⁵ L = loose; C = compact.

⁶ R = round; F = flat; O = oval; P = pointed.

TABLE 2. PICKLING CUCUMBER VARIETY TRIAL, MILSTEAD, SPRING 1977¹

| Variety and seed source | Marketable yield/acre, by sizes ² | | | | | Harvest season ³ | L/D ratio | Color ⁴ | Fruit shape | Spine ⁵ color | Vine vigor | Carpel separation ⁶ | |
|-------------------------|--|-------------|-------------|-------------|-------------|-----------------------------|-----------|--------------------|-------------|--------------------------|------------|--------------------------------|-------------|
| | No. 1 | No. 2 | No. 3 | No. 4 | Total | | | | | | | No. 3's | No. 4's |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | | | | | | | <i>Pct.</i> | <i>Pct.</i> |
| C 589 (Harris) | 24.60 | 96.64 | 235.45 | 134.45 | 491.14 | M | 2.81 | G | Good | Wh | Good | 1 | 0 |
| Explorer (Asgrow) | 30.27 | 113.20 | 212.68 | 129.20 | 485.35 | E | 2.95 | LG | Good | Wh | Good | 0 | 0 |
| Panorama (Ferry-Morse) | 22.02 | 92.00 | 213.76 | 126.01 | 453.79 | M | 3.10 | LG | Good | Wh | Good | 0 | 0 |
| Calypso (NCSU) | 28.88 | 103.50 | 193.21 | 122.80 | 448.39 | L | 3.19 | G | Good | Wh | Good | 1 | 1 |
| 38C2 (Harris) | 26.30 | 99.91 | 218.14 | 99.66 | 444.01 | M | 3.00 | LG | Fair | Wh | Good | 2 | 0 |
| NCX 5008 (Niagara) | 18.16 | 79.26 | 220.39 | 124.70 | 442.51 | E | 2.81 | LG | Fair | Wh | Good | 1 | 1 |
| FX 4153 (Ferry-Morse) | 23.69 | 96.74 | 194.42 | 124.03 | 438.88 | M | 3.21 | LG | Good | Wh | Good | 1 | 1 |
| Bounty (Asgrow) | 26.09 | 91.87 | 202.75 | 117.15 | 437.86 | M | 3.10 | G | Fair | Blk | Good | 2 | 0 |
| XP 809 (NK) | 20.84 | 99.55 | 192.56 | 87.93 | 400.88 | L | 3.28 | G | Fair | Wh | Good | 0 | 6 |
| FX 4169 (Ferry-Morse) | 16.50 | 72.36 | 191.25 | 119.26 | 399.37 | E | 2.84 | LG | Good | Wh | Good | 3 | 2 |
| Score (Asgrow) | 21.10 | 92.19 | 171.55 | 105.69 | 390.53 | L | 3.08 | LG | Good | Wh | Good | 2 | 1 |
| Triple Cross (Harris) | 22.97 | 90.23 | 169.43 | 106.04 | 388.67 | M | 3.18 | G | Good | Wh | Good | 0 | 0 |
| Triplemech (Petoseed) | 23.52 | 102.94 | 158.16 | 98.35 | 382.97 | L | 3.20 | LG | Fair | Wh | Good | 2 | 1 |
| XP 1149 (Asgrow) | 24.96 | 101.68 | 151.36 | 101.68 | 379.01 | M | 3.01 | LG | Fair | Wh | Good | 2 | 7 |
| Premier (Asgrow) | 20.55 | 95.66 | 181.51 | 78.02 | 375.74 | M | 3.15 | LG | Good | Wh | Good | 0 | 0 |
| Carolina (Asgrow) | 25.03 | 81.12 | 162.08 | 94.39 | 362.62 | M | 3.08 | G | Good | Wh | Good | 3 | 3 |
| Sampson (Petoseed) | 20.65 | 84.24 | 160.54 | 94.16 | 359.59 | L | 2.86 | DG | Good | Wh | Good | 2 | 2 |
| NCSU 77-G27 (NCSU) | 20.06 | 90.66 | 165.01 | 80.38 | 356.11 | L | 3.01 | DG | Good | Wh | Good | 1 | 2 |
| TX 377 (TAMU) | 19.83 | 75.83 | 160.80 | 98.98 | 355.44 | L | 3.35 | Uns. | Poor | Wh | Good | 0 | 0 |
| XP 808 (NK) | 19.72 | 74.23 | 164.85 | 82.35 | 341.15 | M | 2.30 | LG | Fair | Wh | Good | 2 | 0 |
| NCSU 76-G30 (NCSU) | 27.66 | 86.07 | 147.77 | 71.67 | 333.17 | E | 3.41 | G | Good | Wh | Good | 1 | 0 |
| XP 1152 (Asgrow) | 19.37 | 77.07 | 162.30 | 68.63 | 327.37 | E | 3.03 | G | Fair | Wh | Good | 1 | 11 |
| Addis (NCSU) | 22.74 | 84.06 | 120.88 | 70.39 | 298.07 | L | 3.33 | DG | Good | Wh | Good | 0 | 0 |
| AR 75-26-28 (UAR) | 11.96 | 63.41 | 129.70 | 68.96 | 274.03 | L | 2.82 | G | Good | Wh | Good | 0 | 0 |

¹ Soil test: P = 122(H); K = 160(VH); pH = 6.2.² No. 1 size ranged up to 1 1/16 inches in diameter; No. 2 size ranged from 1 1/16 to 1 1/2 inches in diameter; No. 3 size ranged from 1 1/2 to 2 inches in diameter; No. 4 size ranged from 2 to 2 1/4 inches in diameter.³ E = early; M = mid-season; L = late.⁴ G = green; LG = light green; DG = dark green; Uns = unsatisfactory.⁵ Wh = white; Blk = black.⁶ Carpel separation was based on the percent of fruits cut that had open air spaces in the middle.TABLE 3. PICKLING CUCUMBER VARIETY TRIAL, MILSTEAD, FALL, 1977¹

| Variety and seed source | Marketable yield/acre, by sizes ² | | | | | Harvest season ³ | L/D ratio | Color ⁴ | Fruit shape | Spine ⁵ color | Vine vigor | Carpel separation ⁶ | |
|-------------------------|--|-------------|-------------|-------------|-------------|-----------------------------|-----------|--------------------|-------------|--------------------------|------------|--------------------------------|-------------|
| | No. 1 | No. 2 | No. 3 | No. 4 | Total | | | | | | | No. 3's | No. 4's |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | | | | | | | <i>Pct.</i> | <i>Pct.</i> |
| XP 1152 (Asgrow) | 26.81 | 63.24 | 167.23 | 68.74 | 326.02 | E | 3.17 | G | Good | Wh | Fair | 0 | 0 |
| XP 1149 (Asgrow) | 22.37 | 39.70 | 135.64 | 36.69 | 234.40 | E | 3.01 | LG | Fair | Wh | Good | 0 | 0 |
| 38C2 (Harris) | 15.83 | 71.02 | 80.64 | 48.85 | 216.34 | E | 2.97 | LG | Good | Wh | Good | 0 | 0 |
| NCX 5008 (Niagara) | 14.91 | 61.28 | 74.69 | 30.41 | 211.29 | E | 3.12 | Uns. | Good | Wh | Excel. | 5 | 0 |
| Triplemech (Petoseed) | 21.91 | 68.93 | 70.96 | 40.29 | 188.01 | E | 3.06 | LG | Fair | Wh | Good | 0 | 0 |
| FX 4153 (Ferry-Morse) | 19.82 | 75.99 | 66.12 | 25.24 | 187.17 | E | 3.07 | G | Fair | Wh | Excel. | 0 | 16 |
| C589 (Harris) | 22.43 | 65.66 | 52.52 | 43.88 | 184.49 | E | 2.96 | G | Excel. | Wh | Excel. | 0 | 0 |
| Carolina (Asgrow) | 21.52 | 63.24 | 68.74 | 26.81 | 180.31 | M | 3.05 | G | Good | Wh | Good | 0 | 0 |
| NCSU 76-G30 (NCSU) | 21.12 | 66.32 | 61.28 | 21.97 | 170.69 | M | 3.28 | G | Good | Wh | Good | 0 | 0 |
| Explorer (Asgrow) | 14.39 | 50.49 | 53.10 | 44.73 | 162.71 | M | 2.76 | G | Fair | Wh | Good | 0 | 0 |
| Calypso (NCSU) | 21.58 | 62.78 | 59.97 | 17.46 | 161.79 | E | 3.05 | DG | Good | Wh | Fair | 0 | 0 |
| Triple Cross (Harris) | 17.79 | 54.15 | 62.13 | 24.33 | 158.40 | E | 2.98 | LG | Fair | Wh | Excel. | 11 | 33 |
| Bounty (Asgrow) | 14.45 | 62.06 | 49.83 | 31.78 | 158.12 | M | 2.95 | G | Good | Blk | Good | 0 | 0 |
| XP 808 (NK) | 18.64 | 54.81 | 56.05 | 24.98 | 154.48 | E | 3.40 | LG | Fair | Wh | Good | 0 | 0 |
| XP 809 (NK) | 17.27 | 58.53 | 55.00 | 23.61 | 154.41 | M | 3.19 | LG | Fair | Wh | Excel. | 0 | 0 |
| NCSU 77-G27 (NCSU) | 24.13 | 67.89 | 35.84 | 12.95 | 140.81 | L | 3.24 | G | Good | Wh | Fair | 0 | 0 |
| Premier (Asgrow) | 15.43 | 50.88 | 50.36 | 21.90 | 138.57 | M | 2.97 | LG | Good | Wh | Good | 0 | 0 |
| Score (Asgrow) | 13.34 | 50.49 | 48.72 | 24.26 | 136.81 | L | 2.99 | LG | Good | Wh | Good | 0 | 0 |
| TX 377 (TAMU) | 14.39 | 46.24 | 51.93 | 20.99 | 133.55 | M | 3.43 | LG | Good | Wh | Excel. | 0 | 0 |
| FX 4169 (Ferry-Morse) | 12.75 | 48.40 | 45.58 | 23.15 | 129.88 | L | 2.96 | G | Good | Wh | Good | 0 | 0 |
| Panorama (Ferry-Morse) | 13.67 | 39.70 | 36.69 | 22.37 | 112.43 | M | 3.07 | LG | Good | Wh | Good | 0 | 0 |
| Addis (NCSU) | 20.27 | 42.64 | 22.89 | 13.08 | 98.88 | L | 3.23 | DG | Excel. | Wh | Fair | 0 | 0 |
| Sampson (Petoseed) | 15.24 | 38.00 | 29.23 | 17.53 | 85.76 | L | 3.27 | G | Good | Wh | Excel. | 0 | 0 |
| AR 75-26-28 (UAR) | 7.26 | 16.94 | 14.32 | 6.54 | 45.06 | L | 2.93 | G | Good | Wh | Fair | 0 | 0 |

¹ Soil test: P = 122(H); K = 160(VH); pH = 6.2.² No. 1 size ranged up to 1 1/16 inches in diameter; No. 2 size ranged from 1 1/16 to 1 1/2 inches in diameter; No. 3 size ranged from 1 1/2 to 2 inches in diameter; No. 4 size ranged from 2 to 2 1/4 inches in diameter.³ E = early; M = mid-season; L = late.⁴ G = green; LG = light green; DG = dark green; Uns = unsatisfactory.⁵ Wh = white; Blk = black.⁶ Carpel separation was based on the percent of fruits cut that had open air spaces in the middle.

TABLE 4. POTATO VARIETY TRIAL, FAIRHOPE, 1977¹

| Variety and seed source | Marketable yield/acre | | | Size A of total | Specific gravity | Stand at harvest |
|---------------------------------|-----------------------|---------------------|-------------|-----------------|------------------|------------------|
| | Total | Size A ² | Size B | | | |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | | | |
| Red La Soda (Clemenson, N.D.) | 278 | 274 | 4 | 99 | 1.072 | 100 |
| Red La Soda (Starks) | 274 | 272 | 2 | 99 | .073 | 99 |
| Red La Soda (Donnelley, N.D.) | 272 | 268 | 4 | 98 | .072 | 100 |
| FL-795 (Frito-Lay) | 267 | 263 | 4 | 99 | .082 | 99 |
| Wisconsin 738 (U. Wisconsin) | 255 | 253 | 2 | 99 | .078 | 99 |
| Sebago (Casmus Rolus, Mich.) | 242 | 232 | 10 | 96 | .072 | 99 |
| FL-162 (Frito-Lay) | 237 | 233 | 4 | 98 | .077 | 100 |
| Wisconsin 726 (U. Wisconsin) | 236 | 234 | 2 | 99 | .079 | 100 |
| Wisconsin 774-R (U. Wisconsin) | 227 | 225 | 2 | 99 | .067 | 99 |
| B6987-29 (USDA) | 223 | 221 | 2 | 99 | .076 | 98 |
| Norchip (USDA) | 222 | 214 | 8 | 96 | .081 | 100 |
| La Rouge (Miller & Farbo, N.D.) | 212 | 206 | 6 | 97 | .073 | 100 |
| Atlantic (USDA) | 211 | 209 | 2 | 99 | .084 | 100 |
| Norchip (Starks) | 208 | 204 | 4 | 98 | .083 | 94 |
| Wisconsin 718 (U. Wisconsin) | 205 | 202 | 3 | 99 | .074 | 99 |
| FL-657 (Frito-Lay) | 205 | 202 | 3 | 99 | .073 | 99 |
| Atlantic (Starks) | 204 | 198 | 6 | 97 | .081 | 96 |
| La Chipper (Starks) | 203 | 198 | 5 | 98 | .075 | 100 |
| Norchip (Schneider, N.D.) | 202 | 193 | 9 | 96 | .082 | 100 |
| La Chipper (USDA) | 201 | 200 | 1 | 99 | .075 | 94 |
| La Chipper (USDA) | 199 | 194 | 5 | 97 | .075 | 98 |
| FL-750 (Frito-Lay) | 199 | 191 | 8 | 96 | .076 | 100 |
| Wisconsin 723 (U. Wisconsin) | 199 | 195 | 4 | 98 | .080 | 100 |
| Wisconsin 623 (U. Wisconsin) | 192 | 187 | 5 | 97 | .079 | 99 |
| B7768-4 (USDA) | 189 | 189 | 0 | 100 | .077 | 95 |
| B7767-2 (USDA) | 183 | 179 | 4 | 98 | .073 | 99 |
| Wisconsin 731 (U. Wisconsin) | 181 | 177 | 4 | 98 | .066 | 94 |
| B7802-2 (USDA) | 175 | 174 | 1 | 99 | .077 | 97 |
| B7618-6 (USDA) | 173 | 173 | 0 | 100 | .072 | 98 |
| B7595-3 (USDA) | 161 | 158 | 3 | 98 | .072 | 99 |
| Superior (Starks) | 156 | 153 | 3 | 98 | .077 | 98 |
| FL-723 (Frito-Lay) | 153 | 152 | 1 | 99 | .072 | 99 |
| Wisconsin 715 (U. Wisconsin) | 153 | 150 | 3 | 98 | .074 | 85 |
| Superior (Bogestad, Minn.) | 150 | 148 | 2 | 99 | .077 | 96 |
| Wischip (U. Wisconsin) | 149 | 142 | 7 | 95 | .075 | 98 |
| Superior (USDA) | 148 | 146 | 2 | 99 | .077 | 94 |
| B8101-3 (USDA) | 141 | 139 | 2 | 99 | .077 | 89 |
| B7603-1 (USDA) | 131 | 127 | 4 | 97 | .070 | 99 |
| B7631-8 (USDA) | 100 | 97 | 3 | 97 | .080 | 91 |

¹ Soil test P = 130(H); K = 89(M); mg = 250(H); pH = 5.6.

² Size A = potatoes with 1 7/8 inches diameter and larger; Size B = potatoes with 1 1/2 - 1 7/8 inches diameter.

TABLE 5. POTATO VARIETY TRIAL, CROSSVILLE, 1977¹

| Variety and seed source | Marketable yield/acre | | | Size A of total | Specific gravity | Stand at harvest |
|---------------------------------|-----------------------|---------------------|-------------|-----------------|------------------|------------------|
| | Total | Size A ² | Size B | | | |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | | | |
| Red La Soda (Starks) | 180 | 164 | 16 | 91 | 1.071 | 95 |
| Red La Soda (Clemenson, N.D.) | 169 | 156 | 13 | 92 | .071 | 95 |
| Red La Soda (Donnelley, N.D.) | 158 | 145 | 13 | 92 | .074 | 100 |
| FL-723 (Frito-Lay) | 150 | 145 | 13 | 92 | .072 | 95 |
| Atlantic (USDA) | 139 | 121 | 18 | 87 | .090 | 100 |
| B6987-29 (USDA) | 137 | 128 | 9 | 93 | .077 | 95 |
| Wisconsin 738 (U. Wisconsin) . | 137 | 121 | 16 | 88 | .080 | 85 |
| FL-162 (Frito-Lay) | 133 | 117 | 16 | 88 | .081 | 95 |
| Kennebec (USDA) | 128 | 115 | 13 | 90 | .075 | 95 |
| La Rouge (Miller & Farbo, N.D.) | 128 | 110 | 18 | 86 | .074 | 90 |
| B7802-2 (USDA) | 128 | 124 | 4 | 97 | .078 | 100 |
| B7768-4 (USDA) | 121 | 111 | 10 | 92 | .083 | 85 |
| Norchip (Starks) | 118 | 99 | 19 | 84 | .084 | 100 |
| Wisconsin 726 (U. Wisconsin) . | 118 | 105 | 13 | 89 | .078 | 95 |
| Wisconsin 715 (U. Wisconsin) . | 118 | 103 | 15 | 87 | .075 | 95 |
| Wisconsin 774-R (U. Wisconsin) | 117 | 93 | 24 | 79 | .065 | 95 |
| Norchip (USDA) | 115 | 93 | 22 | 81 | .084 | 100 |
| Wisconsin 723 (U. Wisconsin) . | 114 | 99 | 15 | 87 | .082 | 95 |
| B7603-1 (USDA) | 114 | 90 | 24 | 79 | .074 | 100 |
| Atlantic (Starks) | 114 | 107 | 7 | 94 | .090 | 80 |
| FL-795 (Frito-Lay) | 113 | 101 | 12 | 89 | .081 | 75 |
| B7618-6 (USDA) | 112 | 103 | 9 | 92 | .073 | 95 |
| La Chipper (Burbidge, N.D.) . | 109 | 96 | 13 | 88 | .079 | 95 |
| La Chipper (USDA) | 108 | 93 | 15 | 86 | .078 | 95 |
| Norchip (Schneider, N.D.) | 107 | 86 | 21 | 80 | .085 | 100 |
| Sebago (Casper Rolus, Mich.) . | 103 | 84 | 19 | 82 | .066 | 90 |
| Wisconsin 623 (U. Wisconsin) . | 103 | 79 | 24 | 77 | .079 | 90 |
| Wisconsin 718 (U. Wisconsin) . | 102 | 92 | 10 | 90 | .072 | 90 |
| Superior (Starks) | 99 | 86 | 13 | 96 | .078 | 100 |
| Wisconsin 731 (U. Wisconsin) . | 96 | 86 | 10 | 86 | .068 | 90 |
| Superior (USDA) | 95 | 89 | 6 | 94 | .080 | 100 |
| B8101-3 (USDA) | 95 | 85 | 10 | 89 | .083 | 95 |
| Superior (Bogestad, Minn.) | 94 | 84 | 10 | 89 | .078 | 100 |
| FL-750 (Frito-Lay) | 91 | 67 | 24 | 74 | .077 | 90 |
| La Chipper (Starks) | 90 | 72 | 18 | 80 | .079 | 90 |
| B7595-3 (USDA) | 89 | 72 | 17 | 81 | .078 | 95 |
| B7767-2 (USDA) | 83 | 67 | 16 | 81 | .075 | 80 |
| FL-657 (Frito-Lay) | 80 | 76 | 4 | 93 | .071 | 60 |
| B7631-8 (USDA) | 74 | 59 | 15 | 80 | .083 | 95 |
| Wischip (U. Wisconsin) | 68 | 44 | 24 | 65 | .079 | 100 |

¹ Soil test p = 145(VH); K = 128(H); mg = 77(H); pH = 5.6.

² Size A = potatoes with 1 7/8 inches diameter and larger; Size B = potatoes with 1 1/2 - 1 7/8 inches diameter.

TABLE 6. CHARACTERISTICS OF POTATO VARIETIES, 1977

| Variety and seed source | Eye ¹ depth | Eye ² size | Skin ³ color | Shape ⁴ | Eye ⁵ appeal | Harvest ⁶ season |
|-----------------------------------|------------------------|-----------------------|-------------------------|--------------------|-------------------------|-----------------------------|
| Red La Soda (Starks) | D | L | Red | R | 4.5 | M |
| Red La Soda (Clemenson, N.D.) | D | L | Red | R | 4.5 | M |
| Red La Soda (Donnelley, N.D.) | D | L | Red | R | 4.5 | M |
| FL-723 (Frito-Lay) | S | S | Clear | R | 3.0 | E |
| Atlantic (USDA) | M | M | Wh-SR | R | 4.5 | M-L |
| B6987-29 (USDA) | S | S | Wh | R | 4.5 | L |
| Wisconsin 739 (U. Wisconsin) . | S | S | Wh-SR | R-F | 3.5 | L |
| FL-162 (Frito-Lay) | S | S | Wh | R | 4.5 | M-L |
| Kennebec (USDA) | S | S | Wh | R-L | 4.0 | L |
| La Rouge (Miller & Farbo, N.D.) | D | L | Red | R | 4.0 | M |
| B7802-2 (USDA) | S | M | Wh | R-F | 3.0 | M |
| B7768-4 (USDA) | S | S | Wh-SR | R | 4.0 | M |
| Norchip (Starks) | M | S | Wh | R | 4.0 | L |
| Wisconsin 726 (U. Wisconsin) . | S | S | Wh | R | 4.5 | L |
| Wisconsin 715 (U. Wisconsin) . | S | S | Wh | R | 3.5 | M-L |
| Wisconsin 774-R (U. Wisconsin) | D | L | Red | L | 3.5 | L |
| Norchip (USDA) | M | S | Wh | R | 4.0 | L |
| Wisconsin 723 (U. Wisconsin) . | M | M | Wh | R-L | 3.0 | M |
| B7603-1 (USDA) | S | S | Pink | R-L | 3.0 | M |
| Atlantic (Starks) | M | M | Wh-SR | R | 4.5 | M-L |
| FL-795 (Frito-Lay) | S | S | Wh | R-F | 4.0 | L |
| B7618-6 (USDA) | S | S | Wh | R-F | 3.0 | E |
| La Chipper (Burbidge, N.D.) . . | S | S | Wh | R-F | 3.5 | M |
| La Chipper (USDA) | M | M | Wh | R-F | 3.5 | M |
| Norchip (Schneider, N.D.) | M | S | Wh | R | 4.0 | L |
| Sebago (Casper Rolus, Mich.) . | S | S | Wh | R-F | 4.0 | L |
| Wisconsin 623 (U. Wisconsin) . | S | S | Wh-SR | R | 4.0 | M |
| Wisconsin 718 (U. Wisconsin) . | S | S | Wh-SR | R | 3.0 | E |
| Superior (Starks) | M | M | Wh-SR | R | 4.0 | E |
| Wisconsin 731 (U. Wisconsin) . | S | L | Wh-SR | R | 3.0 | M |
| Superior (USDA) | M | M | Wh-SR | R | 4.0 | E |
| B8101-3 (USDA) | S | M | Wh-SR | R-L | 3.0 | L |
| Superior (Bogestad, Minn.) . . . | M | M | Wh-SR | R | 4.5 | E |
| FL-750 (Frito-Lay) | S | S | Wh | R | 3.5 | M |
| La Chipper (Starks) | S | S | Wh | R | 3.0 | M |
| B7595-3 (USDA) | S | S | Pink | R | 3.0 | M |
| B7767-2 (USDA) | S | S | Wh-SR | R-L | 3.0 | M |
| FL-657 (Frito-Lay) | S | S | Wh | R | 3.5 | M |
| B7631-8 (USDA) | M | M | Wh | R-L | 3.0 | L |
| Wischip (U. Wisconsin) | S | S | Wh | R | 4.0 | E |

¹ S = shallow; M = medium; D = deep.

² S = small; M = medium; L = large.

³ Wh = white; SR = some russett.

⁴ R = round; F = flat; L = long.

⁵ 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

⁶ E = 90; M = 95; L = 100 days from planting to harvest.

TABLE 7. SWEETPOTATO VARIETY TRIALS, MILSTEAD AND FAIRHOPE, 1977¹

| Variety and seed source | Marketable yield/acre | | | | U.S. No. 1 | Skin color |
|------------------------------------|-------------------------|----------------------|--------------------|------------|-------------|----------------------|
| | U.S. No. 1 ² | Canners ³ | Jumbo ⁴ | Total | | |
| | <i>Bu.</i> ⁵ | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Pct.</i> | |
| Milstead-replicated | | | | | | |
| LO-323 (LSU-Chase) | 288 | 16 | 276 | 580 | 50 | Copper to rose |
| Jasper (Auburn) | 56 | 304 | 92 | 452 | 12 | Copper to rose |
| Ll-207 (LSU-Chase) | 264 | 57 | 102 | 423 | 62 | Copper to rose |
| Porto Rico (LSU-Chase) | 32 | 295 | 81 | 408 | 8 | Light tan |
| Red Jewel (Auburn) | 176 | 140 | 74 | 390 | 45 | Red |
| NC-320 (NCSU) | 62 | 218 | 56 | 336 | 18 | Rose |
| Carver (Tuskegee Inst.) | 53 | 212 | 53 | 318 | 17 | Rose |
| Jewel (Auburn) | 191 | 27 | 79 | 297 | 64 | Copper |
| Milstead-observational | | | | | | |
| VPO-322 (VPI) | 264 | 34 | 226 | 524 | 51 | Yellow |
| NC-345 (NCSU) | 325 | 38 | 127 | 490 | 66 | Copper to light tan |
| MD-409 (U. Maryland) | 238 | 20 | 217 | 475 | 51 | Copper to light rose |
| L3-151 (LSU-Chase) | 235 | 12 | 214 | 461 | 51 | Rose to tan |
| Rojo Blanco (Tuskegee Inst.) | 146 | 6 | 265 | 417 | 35 | Dark red |
| M3-702 (MAFES) | 225 | 22 | 164 | 411 | 55 | Yellow |
| Ti-1895 (Tuskegee Inst.) | 261 | 63 | 67 | 391 | 67 | Copper to rose |
| L4-112 (LSU-Chase) | 251 | 86 | 24 | 361 | 70 | Rose |
| Ti-1894 (Tuskegee Inst.) | 229 | 63 | 63 | 355 | 65 | Light tan to white |
| Centennial (Auburn) | 215 | 36 | 96 | 347 | 62 | Copper |
| Ti-1892 (Tuskegee Inst.) | 179 | 92 | 15 | 286 | 63 | Purple to red |
| Fairhope-replicated | | | | | | |
| Centennial (Auburn) | 415 | 191 | 97 | 703 | 59 | Copper |
| Jewel (Auburn) | 237 | 173 | 122 | 532 | 45 | Copper |
| Porto Rico (LSU-Chase) | 310 | 157 | 36 | 503 | 62 | Light tan |
| Carver (Tuskegee Inst.) | 258 | 165 | 10 | 433 | 60 | Rose |
| Jasper (Auburn) | 223 | 165 | 39 | 427 | 52 | Copper to rose |
| NC-320 (NCSU) | 146 | 144 | 24 | 314 | 46 | Rose |
| Red Jewel (Auburn) | 142 | 97 | 45 | 284 | 50 | Red |

¹ Auburn: Soil test P = 122(H); K = 160(H); pH = 6.2; Fairhope: Soil test P = 140(H); K = 80(M); pH = 5.8.

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

³ Canners were 1 to 2 inches in diameter and 2 to 7 inches in length.

⁴ Jumbo roots exceeded the diameter, length, and weight requirements for the No. 1 grade but were of marketable quality.

⁵ Bushel = 55 pounds.

TABLE 8. SWEETPOTATO VARIETY TRIALS, CLANTON AND CULLMAN, 1977¹

| Variety and seed source | Marketable yield/acre | | | | U.S. No. 1 | Skin color |
|------------------------------|-------------------------|----------------------|--------------------|-------|------------|---------------------|
| | U.S. No. 1 ² | Canners ³ | Jumbo ⁴ | Total | | |
| | Bu. ⁵ | Bu. | Bu. | Bu. | | |
| Clanton-replicated | | | | | | |
| Red Jewel (Auburn) | 130 | 142 | 116 | 388 | 34 | Red |
| Centennial (Auburn) | 136 | 149 | 77 | 362 | 38 | Copper |
| Jasper (Auburn) | 101 | 103 | 121 | 325 | 31 | Coper to rose |
| Carver (Tuskegee Inst.) | 83 | 168 | 52 | 303 | 27 | Rose |
| L1-207 (LSU-Chase) | 102 | 138 | 39 | 279 | 37 | Copper to rose |
| Jewel (Auburn) | 100 | 98 | 76 | 274 | 36 | Copper |
| NC-320 (NCSU) | 48 | 111 | 49 | 208 | 23 | Rose |
| Porto Rico (LSU-Chase) | 73 | 34 | 37 | 144 | 51 | Light tan |
| Clanton-observational | | | | | | |
| Rojo Blanco (Tuskegee Inst.) | 54 | 140 | 222 | 416 | 13 | Dark red |
| Ti-1895 (Tuskegee Inst.) | 121 | 191 | 62 | 374 | 32 | Copper to rose |
| Ti-1894 (Tuskegee Inst.) | 75 | 147 | 15 | 237 | 32 | Light tan to white |
| Ti-1892 (Tuskegee Inst.) | 51 | 154 | 13 | 218 | 23 | Purple to red |
| Cullman-replicated | | | | | | |
| Carver (Tuskegee Inst.) | 197 | 104 | 82 | 383 | 51 | Rose |
| Jewel (Auburn) | 158 | 54 | 143 | 355 | 45 | Copper |
| Red Jewel (Auburn) | 152 | 74 | 85 | 311 | 49 | Red |
| Centennial (Auburn) | 152 | 91 | 46 | 289 | 53 | Copper |
| Jasper (Auburn) | 126 | 56 | 98 | 280 | 45 | Copper to rose |
| L1-207 (LSU-Chase) | 152 | 63 | 15 | 230 | 66 | Copper to rose |
| Porto Rico (LSU-Chase) | 126 | 52 | 26 | 204 | 62 | Light Tan |
| NC-320 (NCSU) | 76 | 54 | 50 | 180 | 42 | Rose |
| Cullman-observational | | | | | | |
| NC-172 (NCSU) | 277 | 39 | 65 | 381 | 73 | Rose |
| Ti-1892 (Tuskegee Inst.) | 199 | 91 | 82 | 372 | 53 | Purple to red |
| VPO-322 (VPI) | 173 | 67 | 117 | 357 | 48 | Yellow |
| Rojo Blanco (Tuskegee Inst.) | 143 | 24 | 163 | 330 | 43 | Dark red |
| M3-702 (MAFES) | 173 | 52 | 104 | 329 | 53 | Yellow |
| Ti-1895 (Tuskegee Inst.) | 171 | 95 | 19 | 285 | 60 | Copper to rose |
| Ti-1894 (Tuskegee Inst.) | 126 | 106 | 43 | 275 | 46 | Light tan to white |
| NC-345 (NCSU) | 141 | 59 | 17 | 217 | 65 | Light tan to copper |

¹ Clanton: soil test P = 226(VH); K = 187(M); pH = 5.8; Cullman: soil test P = 180(H); K = 100(M); pH = 6.1.

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

³ Canners were 1 to 2 inches in diameter and 2 to 7 inches in length.

⁴ Jumbo roots exceeded the diameter, length, and weight requirements for the No. 1 grade but were of marketable quality.

⁵ Bushel = 55 pounds.

TABLE 9. STAKED FRESH MARKET TOMATO TRIAL, CLANTON, 1977¹

| Variety and seed source | Marketable yield/acre ² | | | | Culls | | | | | | | Harvest season ⁷ |
|----------------------------------|------------------------------------|-------|-------|--------------------|--------|---------------------|--------|----------|---------------------|------------------|-----|-----------------------------|
| | 5X6 ³ | 6X6 | 6X7 | Total ⁴ | Total | Pct. of total yield | Cracks | Cat-face | Others ⁵ | BER ⁶ | | |
| | Cwt. | Cwt. | Cwt. | Cwt. | Cwt. | Pct. | Pct. | Pct. | Pct. | Pct. | | |
| Pink Delight (Twillley) | 86.19 | 59.51 | 50.58 | 196.28 | 264.63 | 57 | 15 | 19 | 42 | 24 | E-M | |
| Traveler (Twillley) | 54.67 | 62.23 | 63.38 | 180.28 | 213.93 | 54 | 23 | 9 | 43 | 25 | E | |
| Homestead 24 (Niagara) | 72.20 | 53.03 | 50.03 | 175.26 | 232.61 | 57 | 39 | 13 | 42 | 6 | M | |
| Walter (Asgrow) | 65.56 | 39.91 | 49.66 | 155.23 | 261.14 | 62 | 44 | 15 | 35 | 6 | M | |
| Tropic (Asgrow) | 77.54 | 45.96 | 26.79 | 150.29 | 350.23 | 70 | 27 | 32 | 27 | 14 | M-L | |
| Hybrid 980 (Agway) | 84.23 | 39.53 | 25.38 | 149.14 | 274.14 | 65 | 25 | 24 | 33 | 18 | L | |
| Super Red Hybrid (Agway) | 87.78 | 31.74 | 26.14 | 145.66 | 262.18 | 64 | 17 | 22 | 24 | 37 | E | |
| Floradel (Asgrow) | 56.41 | 42.14 | 43.23 | 141.78 | 377.99 | 73 | 29 | 18 | 46 | 7 | L | |
| Bonnie Nematode Resistant | | | | | | | | | | | | |
| (Bonnie Farms) | 75.14 | 34.25 | 30.71 | 140.10 | 261.63 | 65 | 19 | 26 | 35 | 20 | E | |
| Better Boy VFN (Petoseed) | 86.31 | 29.08 | 20.26 | 135.65 | 291.74 | 68 | 32 | 22 | 24 | 22 | E | |
| Spring Giant Hybrid (Twillley) | 58.59 | 40.62 | 31.69 | 130.90 | 167.27 | 56 | 29 | 11 | 49 | 11 | L | |
| AU 76 FMN (Greenleaf) | 54.99 | 35.66 | 32.13 | 122.78 | 255.59 | 68 | 15 | 18 | 51 | 16 | M-L | |
| Big Girl VF Hybrid (Burpee) | 53.69 | 32.89 | 28.31 | 114.89 | 284.61 | 71 | 35 | 23 | 24 | 18 | M | |
| Terrific VFN (Petoseed) | 43.56 | 22.71 | 27.12 | 93.39 | 273.88 | 75 | 25 | 10 | 28 | 37 | E | |
| Saturon (Twillley) | 13.01 | 23.53 | 34.85 | 71.39 | 247.37 | 78 | 23 | 12 | 57 | 8 | M | |
| AU 72-5 (Greenleaf) | 11.16 | 15.14 | 16.66 | 42.96 | 224.28 | 84 | 11 | 8 | 28 | 53 | L | |

¹ Soil test P = 208(H); K = 242(H); pH = 5.8. 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.

5X6 arrangement: minimum diameter 2 11/16 inches; maximum diameter 3 3/16 inches.

6X6 arrangement: minimum diameter 2 8/16 inches; maximum diameter 2 14/16 inches.

6X7 arrangement: minimum diameter 2 4/16 inches; maximum diameter 2 10/16 inches.

³ Some fruits in this size arrangement were larger than standard sizes.

⁴ 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.

⁵ Others were mostly tomatoes too small to be marketed in the above sizes. Some were from rots, insect damage, mechanical damage, and misshapen fruits.

⁶ Blossom-end rot.

⁷ E = early; M = mid-season; L = late.

TABLE 10. STAKED FRESH MARKET TOMATO TRIAL, CULLMAN, 1977¹

| Variety and seed source | Marketable yield/acre ² | | | | Culls | | | | | |
|--|------------------------------------|-------------|-------------|--------------------|-------------|--------------|-------------|-------------|-------------|-----------------------------|
| | 5X6 ³ | 6X6 | 6X7 | Total ⁴ | Total | Pct of total | Cracks | Cat-face | Others | Harvest season ⁶ |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Pct.</i> | <i>Pct.</i> | <i>Pct.</i> | <i>Pct.</i> | |
| Replicated | | | | | | | | | | |
| Super Red Hybrid (Agway) | 163.77 | 199.66 | 73.76 | 437.19 | 101.22 | 19 | 3 | 12 | 85 | E |
| Hybrid 980 (Agway) | 94.94 | 224.63 | 97.47 | 417.04 | 129.88 | 23 | 2 | 10 | 88 | E |
| Bfg Girl VF Hybrid (Burpee) | 172.72 | 187.22 | 53.79 | 413.73 | 86.06 | 17 | 5 | 15 | 80 | M |
| Monte Carlo VFN (Petoseed) | 56.16 | 205.69 | 109.65 | 371.50 | 120.28 | 24 | 2 | 5 | 93 | E |
| Tropic (Asgrow) | 96.30 | 178.30 | 79.85 | 354.45 | 88.03 | 20 | 5 | 9 | 86 | M-L |
| Floradel (Asgrow) | 58.44 | 150.47 | 116.95 | 325.86 | 184.76 | 36 | 1 | 5 | 94 | L |
| Pink Delight (Twilley) | 48.28 | 161.03 | 102.12 | 311.43 | 140.87 | 31 | 1 | 3 | 96 | E |
| Traveler (Twilley) | 28.73 | 152.98 | 115.89 | 297.60 | 96.70 | 25 | 2 | 1 | 97 | M |
| Terrific VFN (Petoseed) | 49.14 | 140.80 | 107.16 | 297.10 | 141.59 | 32 | 8 | 4 | 88 | E |
| Better Boy VFN (Petoseed) | 73.62 | 134.74 | 64.07 | 272.43 | 101.91 | 27 | 6 | 11 | 83 | E |
| Walter (Asgrow) | 31.71 | 131.31 | 102.91 | 265.93 | 179.07 | 40 | 3 | 4 | 93 | E-M |
| Bonus VFN (Petoseed) | 44.87 | 125.08 | 85.36 | 255.30 | 141.60 | 36 | 3 | 6 | 91 | E |
| Bonnie Nematode Resistant (Bonnie Farms) | 40.42 | 112.72 | 94.59 | 247.73 | 118.59 | 32 | 2 | 7 | 91 | E |
| Auburn 76 FMN (Greenleaf) | 6.67 | 96.35 | 132.20 | 235.22 | 117.60 | 32 | 1 | 3 | 96 | E-M |
| Homestead 24 (Niagara) | 14.17 | 99.93 | 114.44 | 228.54 | 162.13 | 42 | 4 | 3 | 93 | E |
| AU 72-5-BK (Greenleaf) | 22.67 | 109.89 | 84.52 | 217.08 | 110.36 | 34 | 2 | 5 | 93 | L |
| Supermarket (Asgrow) | 13.40 | 76.74 | 89.14 | 179.28 | 171.99 | 49 | 3 | 1 | 96 | E |
| Saturn (Twilley) | 3.28 | 42.78 | 111.27 | 157.33 | 193.96 | 55 | 0 | 1 | 99 | L |
| Observational | | | | | | | | | | |
| Big Boy Hybrid (Burpee) | 44.50 | 151.19 | 60.53 | 256.22 | 69.80 | 21 | 6 | 6 | 88 | L |
| XP 160 Hybrid (Asgrow) | 27.88 | 131.83 | 73.77 | 233.48 | 98.79 | 30 | 14 | 7 | 79 | E |
| Market King Hybrid (Twilley) | 45.06 | 110.54 | 68.20 | 223.80 | 96.95 | 30 | 20 | 12 | 68 | M-L |
| Beefmaster Hybrid (Seedway) | 139.81 | 33.66 | 0 | 173.47 | 152.39 | 47 | 5 | 73 | 22 | M-L |
| Spring Giant Hybrid (Twilley) | 15.44 | 67.78 | 75.17 | 158.39 | 97.26 | 38 | 7 | 9 | 84 | E |
| Spring Set Hybrid (Twilley) | 0 | 46.87 | 61.99 | 108.86 | 124.30 | 53 | 3 | 4 | 93 | E |
| Bicentennial Special (P. Smith) | 52.17 | 24.08 | 31.61 | 107.86 | 138.66 | 56 | 13 | 17 | 70 | M |
| AU 66-25 (Norton) | 4.25 | 27.15 | 42.61 | 74.01 | 142.49 | 66 | 2 | 1 | 97 | L |

¹ Soil test P = 130(H); K = 170(H); pH = 6.4.

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

5X6 arrangement: minimum diameter 2 11/16 inches; maximum diameter 3 3/16 inches.

6X6 arrangement: minimum diameter 2 8/16 inches; maximum diameter 2 14/16 inches.

7X7 arrangement: minimum diameter 2 4/16 inches; maximum diameter 2 10/16 inches.

³ Some fruits in this size arrangement were larger than standard sizes.

⁴ 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.

⁵ Others were mostly tomatoes too small to be marketed in the above sizes. Some were from rots, insect damage, mechanical damage, and misshapen fruits.

⁶ E = early; M = mid-season; L = late.

TABLE 11. STAKED FRESH MARKET TOMATO TRIAL, FAIRHOPE, 1977¹

| Variety and seed source | Marketable yield/acre ² | | | | Culls | | | | | |
|--|------------------------------------|-------------|-------------|--------------------|-------------|---------------|-------------|-------------|---------------------|-----------------------------|
| | 5X6 ³ | 6X6 | 6X7 | Total ⁴ | Total | Pct. of total | Cracks | Cat-face | Others ⁵ | Harvest ⁶ season |
| | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Cwt.</i> | <i>Pct.</i> | <i>Pct.</i> | <i>Pct.</i> | <i>Pct.</i> | |
| Replicated | | | | | | | | | | |
| AU 76 FMN (Greenleaf) | 179.62 | 266.58 | 207.03 | 613.23 | 49.23 | 8 | 9 | 66 | 25 | E |
| Traveler 76 (McFarren) | 192.52 | 249.55 | 134.72 | 576.79 | 16.36 | 3 | 0 | 90 | 10 | L |
| XP 802 (Agway) | 257.79 | 176.57 | 139.41 | 573.77 | 131.36 | 19 | 0 | 94 | 6 | M |
| Floradel (Asgrow) | 295.02 | 185.67 | 76.80 | 557.49 | 127.46 | 19 | 2 | 84 | 14 | L |
| Tropic (Asgrow) | 401.24 | 119.65 | 28.33 | 549.22 | 175.90 | 24 | 4 | 93 | 3 | L |
| Monte Carlo VFN (Petoseed) | 323.76 | 158.14 | 56.37 | 538.27 | 135.02 | 20 | 1 | 86 | 13 | L |
| Better Boy VFN (Petoseed) | 385.05 | 99.67 | 29.48 | 514.20 | 180.70 | 26 | 2 | 93 | 5 | M |
| Pink Delight (Twilley) | 125.19 | 184.92 | 104.27 | 504.38 | 91.02 | 15 | 1 | 90 | 9 | E |
| Terrific VFN (Petoseed) | 222.10 | 170.04 | 101.72 | 493.86 | 86.42 | 8 | 9 | 76 | 15 | E-M |
| Walter (Asgrow) | 144.64 | 168.05 | 180.27 | 492.96 | 51.63 | 9 | 0 | 86 | 14 | E-M |
| Saturn (Twilley) | 146.08 | 186.42 | 158.96 | 491.46 | 36.10 | 7 | 1 | 88 | 11 | L |
| Traveler (Twilley) | 125.92 | 206.91 | 146.19 | 479.02 | 24.86 | 5 | 0 | 69 | 31 | L |
| Bonnie Nematode Resistant (Bonnie Farms) | 123.47 | 171.31 | 164.40 | 459.18 | 68.74 | 13 | 3 | 73 | 24 | E |
| Big Girl VF Hybrid (Burpee) | 279.12 | 136.56 | 42.90 | 458.58 | 170.09 | 27 | 2 | 96 | 2 | L |
| Homestead 24 (Niagara) | 86.18 | 185.97 | 180.20 | 452.35 | 59.17 | 12 | 1 | 78 | 21 | E |
| AU 72-5 (Greenleaf) | 262.82 | 124.67 | 48.96 | 436.45 | 86.81 | 17 | 10 | 81 | 9 | L |
| Super Red Hybrid (Agway) | 282.97 | 104.37 | 33.23 | 420.57 | 145.60 | 26 | 3 | 88 | 9 | L |
| Hybrid 980 (Agway) | 195.27 | 133.92 | 90.57 | 419.76 | 155.96 | 27 | 3 | 83 | 14 | E |
| Observational | | | | | | | | | | |
| AU F5-Tropic XSL (Greenleaf) | 230.01 | 236.93 | 143.97 | 610.91 | 69.85 | 10 | 8 | 81 | 11 | E |
| Wonder Boy VF (Petoseed) | 355.71 | 132.51 | 46.33 | 534.55 | 65.11 | 11 | 6 | 91 | 3 | L |
| Bonus VFN (Petoseed) | 182.39 | 177.58 | 119.09 | 479.06 | 48.77 | 9 | 0 | 79 | 21 | E |
| Selected Rutgers (Twilley) | 217.35 | 154.17 | 93.48 | 465.00 | 44.47 | 9 | 36 | 51 | 13 | M |
| Big Boy Giant Hybrid (Burpee) | 233.08 | 119.48 | 59.08 | 411.64 | 71.54 | 15 | 3 | 86 | 11 | L |
| Beefmaster Hybrid (Seedway) | 207.15 | 23.77 | 6.76 | 237.68 | 301.96 | 56 | 9 | 77 | 14 | L |

¹ Soil test P = 180(H); K = 140(H); pH = 6.0.

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

5X6 arrangement: minimum diameter 2 11/16 inches; maximum diameter 3 3/16 inches.

6X6 arrangement: minimum diameter 2 8/16 inches; maximum diameter 2 14/16 inches.

6X7 arrangement: minimum diameter 2 4/16 inches; maximum diameter 2 10/16 inches.

³ Some fruits in this size arrangement were larger than standard sizes.

⁴ 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 above.

⁵ Others were mostly tomatoes too small to be marketed in the above sizes. Some were from rots, insect damage, mechanical damage, and misshapen fruits.

⁶ E = early; M = mid-season; L = late.

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