



## RESEARCH UPDATE 1994

# FRUIT & VEGETABLE

### Wiregrass Added as Site for Southernpea Variety Trials

In 1993 the Wiregrass Substation (WS) in Headland joined the E.V. Smith Research Center (EVS) in Shorter and the North Alabama Horticulture Substation (NAHS) in Cullman as trial sites for testing yield potential of Southernpea varieties. Thirty-six varieties and six AAES advanced breeding lines were planted May 4 at WS, May 20 at EVS and June 11 at NAHS.

Standard cultural practices were used. Recommendations given in *Insect, Disease, Nematode, and Weed Control Recommendations for Commercial Vegetables* (Circular ANR-2) were followed for control of pests. To simulate once-over harvesting used by commercial processors, a single harvest was made on each plot when 80% of the pods were dry. In multiple harvest situations, as in pick-your-own and home gardens, yields are usually greater.

Yields given in the table were determined by weighing all shelled peas after they were soaked in water to allow the dry seeds to absorb water (imbibe) and reach equilibrium with the green

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### 1993 Squash Variety Trials Held in Clanton and Cullman

Twelve varieties of summer squash were direct seeded on bare soil at the North Alabama Horticulture Substation (NAHS) on May 27 and transplanted on plastic mulched plots at the Chilton Area Horticulture Substation (CAHS) on May 12.

At NAHS, each plot consisted of one 42-inch x 20-foot row with an in-row spacing of 12 inches. Plots were fertilized with 13-13-13 at 750 pounds per acre. At CAHS, each plot was 5x20 feet. Preplant fertilizer consisted of 200 pounds per acre as 13-13-13. Sidedress fertilizer was 120 pounds of nitrogen per acre and 240 pounds of potassium per acre.

Squash were harvested 11 times between June 29 and August 5 at NAHS, and 14 times between June 7 and July 9 at CAHS. Earliness was evaluated by adding the U.S. #1 grade yields of the first two harvests.

J.E. Brown, E.H. Simonne, J.M. Kemble, J.A. Pitts, and M.H. Hollingsworth

TABLE 1. SQUASH VARIETY TRIAL AT CLANTON, 1993

Variety	US #1		US #2
	Total yield	Early yield	Total yield
	Lb./a.	Lb./a.	Lb./a.
<b>Crookneck</b>			
Dixie Hybrid .....	14,279	2,874	1,140
Goldie Hybrid .....	13,417	2,557	1,164
Sundance Hybrid .....	11,116	1,974	1,092
Medallion Hybrid .....	12,362	1,843	1,102
FMX 586 .....	10,254	2,343	1,094
FMX 564 .....	12,075	2,511	949
Pavo .....	12,583	2,181	1,054
Crescent .....	14,317	2,650	1,313
<b>Straightneck</b>			
Goldbar .....	13,272	1,404	901
Lemondrop L .....	14,758	2,199	1,045
Enterprise .....	15,812	2,885	1,169
Smoothie .....	20,796	1,519	1,457

TABLE 2. SQUASH VARIETY TRIAL AT CULLMAN, 1993

Variety	US #1		US #2
	Total yield	Early yield	Total yield
	Lb./a.	Lb./a.	Lb./a.
<b>Crookneck</b>			
Dixie Hybrid .....	26,900	3,173	765
Goldie Hybrid .....	24,167	3,211	1,039
Sundance Hybrid .....	28,336	2,583	790
Medallion Hybrid .....	31,261	3,644	840
FMX 586 .....	29,452	2,495	877
FMX 564 .....	32,896	4,227	709
Pavo .....	27,336	3,530	741
Crescent .....	24,594	2,696	653
<b>Straightneck</b>			
Goldbar .....	22,976	1,616	506
Lemondrop L .....	26,510	3,963	685
Enterprise .....	30,888	3,031	660
Smoothie .....	31,212	2,400	573

### Southernpea Trials, continued

seeds. Imbided weights are realistic estimates of mature green, shelled weights of harvested peas.

A brief description based on field observations and official release statements for each southernpea tested in this variety trial is available in the *Proceedings of the Annual Meeting of the Alabama Fruit and Vegetable Growers Association*, or by writing: Dr. O.L. Chambliss, Department of Horticulture, 101 Funchess Hall, Auburn University, Ala., 36849.

O.L. Chambliss, J.S. Bannon, M.H. Hollingsworth, H.W. Ivey, and A.G. Hunter

## Moisture Stress Controls Vegetable Transplant Height

An AAES study indicates that moisture stress is a viable alternative to the use of growth-regulating chemicals to control the height of vegetable transplants.

Plugs of 'Big Boy' tomatoes and 'California Wonder' peppers were transplanted on May 15 into cell packs containing one of two commercial media: Fafard #3, a peat moss, pine bark mix; or Pro-Mix BX, a peat moss, perlite mix. Plants were produced in a polyethylene greenhouse.

Treatments included moisture stress (MS), two rates of B-Nine (a growth regulating substance), and an untreated control. MS plants were allowed to wilt between each irrigation, while the remaining treatments received irrigation to maintain a moist medium surface. B-Nine treatments were applied until runoff at concentrations of 2,500 and 5,000 parts per million (ppm). All treatments were initiated on May 22. The 2,500 ppm treatment was reapplied three weeks after the first application. Plant height was determined on June 15.

Results showed that while MS is a viable alternative to the use of B-Nine, the effectiveness of the technique is media and species dependent. It appears that MS will have a

greater influence on plant height for plants that have high water requirements and are grown in media with a low water-holding capacity. As with any new technique, growers should use caution and become familiar with the wilting process of each plant species and the water-holding capacity of each medium to avoid permanent plant damage from MS.

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COMBINED 1992 AND 1993 SOUTHERNPEA VARIETY TRIALS SHELLD YIELD

Entry	Shorter		Cullman		Headland	
	1992	1993	1992	1993	1992	1993
	Lb./a.	Lb./a.	Lb./a.	Lb./a.	Lb./a.	Lb./a.
<b>Blackeyes</b>						
AUBE .....	2,873	2,918	1,951	2,225	-	2,265
Bettergro Blackeye .....	2,595	2,714	2,114	3,330	-	2,609
California Blackeye #5 .....	706	2,771	784	2,035	-	-
California Blackeye #46 ...	476	947	1,408	-	-	1,950
California Blackeye #88 ...	425	685	827	-	-	2,130
Genegreen .....	2,330	2,144	823	3,173	-	2,013
Giant Blackeye .....	1,048	1,498	1,206	1,090	-	1,217
Magnolia Blackeye .....	-	1,101	-	2,534	-	2,614
Royal Blackeye .....	2,895	1,683	3,042	3,264	-	1,595
AU-M-90-84GC67 .....	2,496	2,618	1,624	2,244	-	1,604
AU-M-89-102 .....	-	1,312	-	2,587	-	2,081
<b>Creams</b>						
Bettergreen .....	2,000	1,453	925	2,745	-	1,783
Carolina Cream .....	1,588	1,542	657	1,908	-	2,149
Freezegreen .....	1,604	956	1,444	1,859	-	1,433
Green Acre .....	1,157	2,031	964	1,891	-	1,665
Mississippi Cream .....	1,710	1,126	2,078	2,507	-	1,970
Sa-Dandy .....	1,470	717	899	1,742	-	1,099
Zipper Cream .....	-	2,624	-	2,145	-	3,078
<b>Crowders</b>						
Carolina Crowder .....	3,234	1,875	2,732	3,507	-	1,955
Carolina Sugar .....	2,483	2,918	2,161	3,091	-	1,817
Clemson Purple .....	3,716	2,982	4,905	3,955	-	2,009
Colossus 80 .....	3,234	4,164	6,074	2,963	-	1,917
C.T. Dimpled Br. Crowder	1,799	1,798	2,375	2,847	-	1,612
C.T. Tenn. White Crowder	1,837	1,427	1,229	2,222	-	1,621
Mississippi Purple .....	3,125	3,475	3,006	3,136	-	2,539
Mississippi Shipper .....	3,742	2,912	2,307	2,944	-	2,251
Mississippi Silver .....	2,529	2,765	2,933	3,639	-	2,597
Worthmore .....	2,000	1,587	2,307	1,297	-	1,060
AU-EVS-91-BC-9 .....	1,972	2,364	2,065	2,331	-	1,377
AU-EVS-91-298 .....	2,796	2,483	2,944	3,442	-	2,500
<b>Pinkeyes</b>						
Corona .....	2,211	2,381	-	2,221	-	2,110
Coronet .....	2,425	2,450	2,967	2,415	-	2,299
C.T. Pinkeye Purplehull ...	2,489	1,952	2,908	3,165	-	1,532
Kiawah .....	2,358	1,722	1,457	2,636	-	1,658
Mississippi Pinkeye .....	3,348	2,470	2,418	2,420	-	2,376
Pinkeye Pinkpod .....	2,988	1,914	1,764	1,479	-	2,018
Pinkeye Purplehull-BVR ..	1,202	3,066	1,777	1,673	-	1,166
Pinkeye Purplehull-GSC ..	1,606	1,818	1,219	2,162	-	1,527
Santee Early Pinkeye .....	2,032	3,488	1,778	2,291	-	1,597
Texas Pinkeye .....	1,825	2,042	1,578	2,037	-	1,747
AU-C-91-INC-328-GT .....	2,112	2,056	2,797	1,786	-	2,045
AU-C-91-INC-328-MIX .....	2,275	2,240	2,572	2,075	-	1,326

TOMATO AND PEPPER TRANSPLANT GROWTH AS INFLUENCED BY HEIGHT CONTROL TREATMENT AND COMMERCIAL MEDIUM TYPE

Treatment	Height			
	Tomato		Pepper	
	Fafard	Pro-Mix	Fafard	Pro-Mix
	In.	In.	In.	In.
Moisture stress ...	11.0	12.9	7.1	8.2
B-Nine 2,500 ppm <sup>1</sup>	12.5	12.8	6.7	7.0
B-Nine 5,000 ppm <sup>2</sup>	14.6	15.0	7.2	7.8
Untreated control	15.4	15.3	8.5	8.4

<sup>1</sup>Two applications (see text).

<sup>2</sup>One application.

## Bush Snap Beans Evaluated for Second Year

The second-year trial for 28 bush snap bean varieties selected for their potential to perform well as fresh market and garden varieties in Alabama was conducted in 1993 at the North Alabama Horticulture Substation in Cullman.

Seeds were planted four inches apart in rows spaced 44 inches apart. Standard cultural practices were followed and rainfall was supplemented with overhead irrigation when needed to equal one inch per week. All plots were harvested 50 days from planting since home and commercial growers look for early, concentrated yields that can be harvested in a single harvest.

Ratings for bean rust were not made due to lack of symptoms in all snap beans tested. Halo blight was present in 17 varieties, but at very low levels.

Varieties with consistently moderate yields may be more desirable than those with high yields one year, but low yields the next. Hialeah, Wrangler, FM-359, Magnum, NUM-0820, Venture, and Jumbo were among the ten highest yielding varieties in 1992 and 1993.

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and O.L. Chambliss

## Maximore Top Producer in 1993 Cucumber Variety Trial

Twelve varieties of slicer cucumbers were direct seeded on bare soil at the North Alabama Horticulture Substation on May 27 and harvested eight times between July 6 and July 29. Plots consisted of one 42-inch x 20-foot row, and plant spacing was six inches. Earliness was evaluated by adding the marketable yields of the first two harvests.

J.E. Brown, E.H. Simonne, J.M. Kemble, and  
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EVALUATION OF BUSH SNAP BEAN VARIETIES FOR EARLY ONCE-OVER PRODUCTION  
AT THE NORTH ALABAMA HORTICULTURE SUBSTATION<sup>1</sup>

Variety	Total yield		Average yield	Shape <sup>2</sup>	Length		Width
	1992	1993			In.	In.	
	Lb./a.	Lb/a.	Lb/a.				
Blue Lake .....	1,895	169	1,032	RC	6.0	0.5	
Blue Ridge .....	1,776	1,488	1,632	RC	5.2	0.5	
Bronco .....	5,077	2,225	3,651	RC	5.4	0.5	
Contender .....	3,288	3,728	3,508	RH	5.5	0.5	
Derby (FM-175) .....	3,588	2,353	2,971	OS	5.7	0.5	
Duchess .....	5,689	1,750	3,720	RC	5.0	0.4	
FM-359 .....	5,558	4,325	4,942	RS	5.9	0.3	
Greencrop .....	3,074	2,923	2,999	OC	6.2	0.5	
Hialeah .....	4,723	6,078	5,401	RC	6.0	0.2	
Homestyle .....	2,774	95	1,432	RC	5.4	0.4	
Jumbo .....	4,892	3,419	4,156	FC	6.5	0.7	
Kentucky Wonder 125	2,569	333	2,431	OC	5.7	0.5	
Labrador .....	1,346	1,964	1,655	RC	4.7	0.4	
Magnum .....	4,658	5,127	4,893	RC	6.7	0.5	
Mirada .....	3,161	2,666	2,914	RC	4.6	0.4	
Mustang .....	3,223	1,909	2,566	RS	5.0	0.4	
NUN-0820 .....	5,519	2,965	4,242	OC	5.1	0.4	
Opus .....	2,685	2,561	2,623	RC	5.0	0.4	
Podsquad .....	4,566	2,249	3,408	RC	5.1	0.3	
RB-BD716-T2 .....	3,170	2,965	3,068	FC	5.2	0.5	
Roma II .....	3,856	3,897	3,877	FC	5.0	0.7	
Seville .....	6,538	2,308	4,423	RC	5.7	0.3	
Strike .....	4,381	2,561	3,471	RC	5.1	0.3	
Tennessee Green Pod	4,174	3,776	3,975	FC	5.6	0.6	
Topcorp .....	2,682	1,236	1,959	RC	5.0	0.4	
Venture .....	4,566	3,903	4,235	RC	6.4	0.5	
White Half-runner .....	1,649	1,619	1,634	OC	4.4	0.5	
Wrangler .....	6,728	3,466	5,097	RC	5.5	0.3	

<sup>1</sup>Planting dates: May 15, 1992, and May 24, 1993. Harvest dates: All plots were once-over harvested at 50 days from planting.

<sup>2</sup>Pod shape: F = flat, O = oval, R = round; C = curved, H = hooked, S = straight.

CUCUMBER VARIETY TRIAL AT NORTH ALABAMA HORTICULTURE SUBSTATION, 1993

Variety (Seed source)	Marketable			Early	Cull
	Yield	Fruit	Individual fruit weight	Yield	Weight
	Lb./a.	No./a.	Lb.	Lb./a.	Lb./a.
Dasher II .....	23,250	46,828	0.50	3,085	7,468
(Abbott & Cobb, Twilley)					
Pointsett 76 .....	19,602	44,339	0.44	287	5,974
(Asgrow)					
Marketmore 76 .....	20,940	40,605	0.52	0	4,692
(Asgrow, Petoseed)					
General Lee .....	27,132	56,163	0.48	2,881	6,808
(Ferry Morse)					
Early triumph Hybrid .....	26,386	55,696	0.47	610	7,219
(Abbott & Cobb, Twilley)					
Comet II A .....	22,963	44,650	0.51	2,619	7,031
(Asgrow)					
Maximore Brand Blend #103	32,173	61,452	0.52	4,623	9,459
(Twilley)					
XPH 1653 (Meteor) .....	27,070	55,229	0.49	2,021	8,525
(Asgrow)					
Centurion .....	30,431	56,629	0.54	2,816	8,805
(Abbott & Cobb)					
Monarch .....	25,950	47,606	0.55	2,477	8,532
(Asgrow)					
A&C Hybrid #1811 .....	24,207	44,961	0.54	1,015	8,364
(Twilley)					
Slice Nice .....	23,336	49,317	0.47	1,593	8,339
(Twilley)					

# Watermelon Variety Trial Results Reported for 1991-93

Watermelon variety trials were conducted at the Gulf Coast Substation in Fairhope, Wiregrass Substation in Headland, Chilton Area Horticulture Substation in Clanton, and the North Alabama Horticulture Substation in Cullman over a three-year period.

Plots consisted of 10 hills with an in-row plant spacing of six feet and between-row plant spacing of 88 inches at all locations, except at the Gulf Coast Substation where between-row plant spacing was 10 feet. Watermelons were grown according to standard fertilizer and pesticide recommendations. All trials were irrigated as needed.

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## Beauregard and Breeding Lines Produce High Sweetpotato Yields

Eighteen sweet potato varieties were evaluated in 1993 at Clanton, Cullman, and Shorter. Average yields obtained with new varieties were similar to or higher than standard varieties.

At the E.V. Smith Research Center (EVS), raised beds with five-foot between-row spacings were planted May 24. Within row spacings were one-foot at all locations. Plots were harvested 113 days after planting. Sixty pounds of nitrogen (N) fertilizer [Ca(NO<sub>3</sub>)<sub>2</sub>] were applied at planting, along with P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O (60 pounds per acre each). An additional 20 pounds of N were applied eight weeks after planting. Rainfall during the season was 11 inches. Irrigation was applied twice, 1.5 inches each time.

Plots were planted June 3 at the North Alabama Horticulture Substation (NAHS) and harvested 119

TABLE 1. AVERAGE WATERMELON FRUIT CHARACTERISTICS FOR ALL LOCATIONS, 1991-1993

Variety	Flesh	Weight/fruit	Length	Width	Rind	Soluble Solids	Type
		Lb.	In.	In.	In.	Pct.	
Starbrite .....	Red	18.2	14.7	9.2	0.7	11.6	Mirage <sup>1</sup>
Tastigold .....	Yellow	13.3	10.1	9.5	0.7	11.3	Small Grey <sup>2</sup>
Jubilee II .....	Red	18.7	16.6	8.8	0.7	10.9	Jubilee <sup>3</sup>
Jubilation .....	Red	18.2	14.4	9.1	0.6	11.3	Jubilee
Royal Jubilee <sup>4</sup> ...	Red	19.2	17.2	8.4	0.7	11.3	Jubilee
Tiffany .....	Red	11.7	9.8	8.8	0.6	11.4	Triploid/CS <sup>5</sup>
AU-Producer .....	Red	16.4	11.4	9.8	0.7	11.5	Crimson Sweet <sup>6</sup>
Crimson Sweet ...	Red	13.8	10.5	9.5	0.7	11.8	Crimson Sweet
Jubilee .....	Red	18.5	16.0	8.4	0.7	10.5	Jubilee
Crimson Tide .....	Red	15.9	11.9	9.4	0.6	11.2	Crimson Sweet
Sangria .....	Red	15.1	15.0	8.2	0.6	11.7	Allsweet <sup>7</sup>
Fiesta .....	Red	14.9	14.6	8.4	0.6	11.5	Allsweet
Mirage LS .....	Red	19.3	14.3	9.4	0.7	11.5	Mirage
AU-Sw. Scarlet ...	Red	15.7	10.9	9.7	0.5	11.6	Crimson Sweet
AU-Gold. Producer	Yellow	14.9	10.9	9.6	0.6	11.7	Crimson Sweet
Cutter 55 .....	Red	16.3	13.8	9.2	0.7	10.9	Jubilee
Carmen F <sub>1</sub> <sup>8</sup> .....	Red	15.7	10.8	9.8	0.7	11.5	Crimson Sweet

TABLE 2. WATERMELON YIELDS BY LOCATION, 1991-93

Variety	Chilton	Gulfcoast	North Alabama	Wiregrass <sup>4</sup>
	Lb./a.	Lb./a.	Lb./a.	Lb./a.
AU Gold. Producer	26,726	15,645	26,693	28,854
AU Sweet Scarlet ..	28,364	17,303	27,294	25,244
AU-Producer .....	33,793	18,398	29,836	31,689
Carmen F <sub>1</sub> <sup>8</sup> .....	34,483	25,446	4,215	-
Crimson Sweet .....	34,303	14,635	32,993	26,622
Crimson Tide .....	34,975	22,379	30,690	34,329
Cutter 55 .....	21,889	17,999	27,380	26,470
Fiesta .....	24,345	21,792	28,607	35,136
Jubilation .....	36,783	26,705	32,517	39,251
Jubilee .....	16,307	15,161	33,432	26,169
Jubilee II .....	43,248	25,737	41,859	46,359
Mirage LS .....	28,505	27,267	38,190	41,986
Royal Jubilee <sup>4</sup> .....	28,120	31,091	60,917	45,158
Sangria .....	31,221	25,634	26,198	25,251
Starbrite .....	39,533	29,845	41,248	43,949
Tastigold .....	29,137	18,653	29,832	33,176
Tiffany .....	12,329	8,410	13,608	9,654

<sup>1</sup>Mirage — intermediate between Crimson Sweet and Jubilee in shape and size with an overall blocky appearance.

<sup>2</sup>Ice box type — small round melon; usually around 10 pounds.

<sup>3</sup>Jubilee — oblong melon; approximately 20 pounds.

<sup>4</sup>Data for two years.

<sup>5</sup>Triploid/CS — seedless crimson sweet.

<sup>6</sup>Crimson Sweet — round melon; 15-20 pounds.

<sup>7</sup>Allsweet — oblong melon like the Jubilee but slightly smaller; about 15 pounds.

<sup>8</sup>Data for one year.

days later. The between row spacing was 3.7 feet. Fertilizer applied at planting was of 40-80-120 pounds per acre of N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O. Rainfall during the season was 13.5 inches. Plots were irrigated twice with 1.5 inches of water each time.

Plots were planted at the Chilton Area Horticulture Substation

(CAHS) on June 3. Harvest occurred 124 days later. The spacing between rows was 3.5 feet. Only nitrogen fertilizer was applied (40 pounds per acre). Rainfall was 13 inches. Irrigation was not applied.

J.M. Dangler, M.H. Hollingsworth, J.A. Pitts, J.B. Witt and T.N. Motis

Table shown on page 6

# Sweet Corn Trials Held

Sweet corn varieties (Supersweet) were evaluated at the E.V. Smith Research Center (EVS) in Shorter, at the Chilton Area Horticulture Substation (CAHS) in Clanton, and at the Sand Mountain Horticulture Substation (SMHS) in Crossville.

At CAHS, corn was planted on May 17 in three-row plots. Plots were 2.5x20 feet with seeds spaced 28 inches apart. Before planting, 1,000 pounds of 5-10-15 per acre were applied, and an additional 100 pounds of nitrogen (N) as ammonium nitrate were sidedressed. Lannate and Bravo were applied at a two-pint per acre rate. The ears were harvested on July 22 and July 28. All trials were irrigated.

At EVS, plots were fertilized preplant with 100 pounds of N per acre as calcium nitrate and 60 pounds of potassium per acre as muriate of potash. Plots were later sidedressed with anhydrous ammonia at 50 pounds of N per acre. Preplant herbicides were Sutan (four pints per acre) and Atrazine (1.5 pints per acre). Corn was planted on May 26 in 2.5x20-foot rows. Plots contained four rows, and the two center rows were harvested. Lannate was applied periodically at two pints per acre and Pounce at four ounces per acre. Plots were harvested on July 30 and August 4.

At SMHS, corn was seeded on May 5. Preplant fertilizer consisted of 13-13-13 at 430 pounds per acre, and an additional 148 pounds of N per acre was sidedressed. Preplant herbicide was Atrazine at two quarts per acre. Lannate was also applied periodically at 1.5 pints per acre. Plots consisted of three 20x4-foot rows. Harvest of the central row was completed on July 19.

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TABLE 1. 1993 SWEET CORN YIELDS AND STANDS<sup>1</sup>

Variety (Seed Source)	Plants	Ear weight	Ears
	No./a.	Lb./a.	No./a.
<b>Shorter</b>			
7710Y (Abbott & Cobb) .....	12,788	2,932	9,012
7630Y (Abbott & Cobb) .....	12,500	3,916	9,736
7801W (Abbott & Cobb) .....	12,500	4,594	12,208
Sweet Belle (Asgrow) .....	12,352	4,175	9,448
Challenger (Asgrow) .....	11,336	4,418	10,464
Even Sweeter (Asgrow) ....	10,172	3,465	8,428
Dazzle (Asgrow) .....	11,916	4,984	11,044
Frontier (Asgrow) .....	14,388	3,417	9,012
<b>Clanton</b>			
7710Y (Abbott & Cobb) .....	26,853	6,241	19,147
7630Y (Abbott & Cobb) .....	24,167	9,216	15,995
7801W (Abbott & Cobb) ....	23,467	7,963	21,249
Sweet Belle (Asgrow) .....	24,868	8,295	21,132
Challenger (Asgrow) .....	21,599	7,384	19,031
Even Sweeter (Asgrow) ....	21,249	5,999	19,848
Dazzle (Asgrow) .....	22,066	7,017	17,279
Frontier (Asgrow) .....	26,035	8,464	20,315
Festival (Asgrow) .....	22,533	4,138	12,609
Cabaret (Asgrow) .....	22,416	8,949	22,066
<b>Crossville<sup>1</sup></b>			
7710Y (Abbott & Cobb) .....	13,556	927	14,099
7630Y (Abbott & Cobb) .....	14,099	1,296	17,171
7801W (Abbott & Cobb) ....	13,918	1,041	20,786
Sweet Belle (Asgrow) .....	14,460	1,046	16,268
Challenger (Asgrow) .....	14,099	1,099	16,629
Even Sweeter (Asgrow) ...	14,279	999	16,810
Dazzle (Asgrow) .....	14,460	1,371	18,256
Frontier (Asgrow) .....	13,556	1,162	18,256
Cabaret (Asgrow) .....	14,279	1,296	20,244

TABLE 2. 1993 SWEET CORN EAR CHARACTERISTICS

Variety (Seed Source)	Tip cover <sup>2</sup>	Ear length	Ear fill <sup>2</sup>	Row shape <sup>3</sup>	Kernel rows	Eye appeal <sup>2</sup>	Ear diameter	Ear set height
		in.					in.	
<b>Shorter<sup>4</sup></b>								
7710Y (Abbott & Cobb) .....	5.00	11.8	3.20	1.47	17	3.47	1.2	21.0
7630Y (Abbott & Cobb) .....	4.53	10.9	3.47	1.47	17	3.80	1.3	19.8
7801W (Abbott & Cobb) .....	3.47	9.2	3.73	1.33	13	3.20	1.5	12.1
Sweet Belle (Asgrow) .....	4.46	10.0	3.54	1.46	17	3.62	1.4	19.5
Challenger (Asgrow) .....	4.67	11.5	4.73	1.53	14	4.67	1.5	16.5
Even Sweeter (Asgrow) .....	4.21	9.4	3.43	1.43	15	3.71	1.4	19.6
Dazzle (Asgrow) .....	4.73	10.6	3.93	1.27	15	3.87	1.4	19.0
Frontier (Asgrow) .....	4.15	10.7	3.15	1.46	15	3.00	1.4	14.4
<b>Clanton<sup>5</sup></b>								
7710Y (Abbott & Cobb) .....	3.77	14.8	3.50	1.63	18	3.50	1.4	26.3
7630Y (Abbott & Cobb) .....	3.93	15.4	3.72	1.36	17	3.65	1.5	26.4
7801W (Abbott & Cobb) .....	3.33	12.9	4.08	1.55	14	3.63	1.7	15.2
Sweet Belle (Asgrow) .....	3.70	15.1	3.70	1.50	18	3.47	1.6	27.5
Challenger (Asgrow) .....	3.63	14.4	4.33	1.48	15	4.23	1.6	21.7
Even Sweeter (Asgrow) .....	2.58	15.1	3.98	1.27	17	3.98	1.6	25.9
Dazzle (Asgrow) .....	3.63	15.3	3.63	1.33	17	3.70	1.6	28.5
Frontier (Asgrow) .....	3.05	14.9	3.65	1.60	17	3.45	1.6	21.0
Festival (Asgrow) .....	2.25	14.4	3.93	1.43	14	3.33	1.5	17.3
Cabaret (Asgrow) .....	2.85	15.0	3.88	1.25	19	3.93	1.7	26.1
<b>Crossville</b>								
7710Y (Abbott & Cobb) .....	5.00	7.9	4.05	1.95	19	3.40	1.6	29.8
7630Y (Abbott & Cobb) .....	5.00	8.0	4.40	1.90	16	4.10	1.7	32.4
7801W (Abbott & Cobb) .....	5.00	6.9	4.25	1.80	14	4.00	1.7	18.8
Sweet Belle (Asgrow) .....	5.00	7.9	4.25	1.95	19	3.85	1.7	31.6
Challenger (Asgrow) .....	5.00	7.5	3.95	1.75	16	3.75	1.6	23.9
Even Sweeter (Asgrow) .....	4.25	7.7	4.55	1.65	17	4.60	1.8	32.9
Dazzle (Asgrow) .....	5.00	7.7	4.50	1.75	17	4.50	1.8	32.2
Frontier (Asgrow) .....	5.00	7.5	4.40	1.95	17	4.15	1.7	23.6
Cabaret (Asgrow) .....	5.00	7.5	4.35	1.60	19	4.05	1.7	30.6

<sup>1</sup>Actual harvest dates at Crossville: July 12--7801W, Challenger; July 16--7710, Sweet Belle, Frontier, Cabaret; July 19--7630Y, Even Sweeter, Dazzle.

<sup>2</sup>Tip cover, ear fill, and eye appeal index: 5 = excellent; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

<sup>3</sup>Row shape rating: 1 = straight, 2 = slightly curved.

<sup>4</sup>Results of Harvest 1.

<sup>5</sup>Average of two Harvests.

# Cantaloupe Trials Held at Two Locales

Cantaloupe trials were conducted at the Sand Mountain Substation in Crossville and the Chilton Area Horticulture Substation in Clanton from 1991-93.

Each plot consisted of 10 hills with an in-row spacing of four feet and a between-row spacing of 44 inches. Cantaloupes were grown according to standard fertilizer and pes-

ticide recommendations. All trials were irrigated as needed.

G.E. Boyhan, J.D. Norton, B.R. Abraham, J.A. Pitts, E.L. Carden, M.H. Hollingsworth, J.T. Eason, and H.W. Ivey

**TABLE 1. CANTALOUPE YIELDS AT CROSSVILLE AND CLANTON, 1991-93**

Variety	Crossville		Clanton <sup>1</sup>	
	Lb./a.	Lb./a.	Lb./a.	Lb./a.
Argonaut .....	11,613	9,008		
Aurora .....	18,318	16,486		
Challenger .....	18,534	18,508		
Chilton .....	10,526	12,349		
Cruiser .....	19,030	22,405		
Dallas .....	19,256	20,355		
Galleon <sup>2</sup> .....	2,573	—		
Hiline .....	20,596	18,262		
HSR 777 <sup>2</sup> .....	6,844	—		
Laredo .....	17,044	12,528		
Legend .....	22,114	18,363		
Marygold <sup>2</sup> .....	18,447	—		
Mission .....	20,360	16,638		
Primo .....	22,144	13,326		
Road Runner ...	28,591	15,916		
Saticoy .....	22,448	14,086		
Starship .....	28,837	19,021		
Summet .....	26,167	16,672		
Super 45 .....	18,021	14,006		
Tekos .....	20,345	16,167		

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Table continued from page 4

**TABLE 2. AVERAGE CANTALOUPE CHARACTERISTICS FOR BOTH LOCATIONS, 1991-93**

Variety	Flesh	Weight/melon		Length		Width		Flesh	Soluble solids	Type
		Lb.	In.	In.	In.	Pct.				
Argonaut .....	Orange	3.9	6.5	6.1	1.5	10.0	Jumbo/Eastern <sup>3</sup>			
Aurora .....	Orange	3.4	5.9	5.5	1.5	9.5	Western <sup>4</sup>			
Challenger .....	Orange	3.0	6.1	5.5	1.5	11.6	Western			
Chilton .....	Orange	2.5	5.1	5.1	1.4	10.1	Western			
Cruiser .....	Orange	3.6	6.4	5.8	1.5	10.3	Western			
Dallas .....	Orange	4.1	6.5	5.9	1.5	10.5	Eastern			
Galleon <sup>2</sup> .....	Orange	2.8	5.5	5.0	1.4	10.1	Western			
Hiline .....	Orange	3.3	6.4	5.4	1.4	9.5	Western			
HSR 777 <sup>2</sup> .....	Orange	2.2	4.5	4.7	1.2	8.9	Eastern			
Laredo .....	Orange	3.0	6.3	5.5	1.4	10.8	Western			
Legend .....	Orange	5.5	7.6	6.2	1.6	8.8	Jumbo/Eastern			
Marygold <sup>2</sup> .....	Green	2.6	5.9	5.3	1.4	12.5	Yellow Honeydew <sup>5</sup>			
Mission .....	Orange	3.0	6.1	5.5	1.5	11.0	Western			
Primo .....	Orange	3.8	7.0	5.9	1.6	10.1	Western			
Road Runner ..	Orange	4.0	6.1	6.1	1.3	9.2	Eastern			
Saticoy .....	Orange	4.2	7.1	6.0	1.6	12.0	Eastern			
Starship .....	Orange	4.1	6.7	6.4	1.6	9.2	Eastern			
Summet .....	Orange	3.4	5.8	5.5	1.5	10.2	Eastern			
Super 45 .....	Orange	2.9	6.0	5.4	1.5	11.7	Western			
Tekos .....	Orange	2.7	5.7	5.4	1.4	9.8	Western			

<sup>1</sup>Data for two years.

<sup>2</sup>Data for one year.

<sup>3</sup>Eastern or jumbo type — large (three to five pounds); often with deep sutures; netting varies from heavy to light.

<sup>4</sup>Western or shipping type — small (about three pounds or less); round, netted melons with little or no sutures; very firm.

<sup>5</sup>Honeydew melons — smooth rind; green or yellow with green or cream flesh.

**YIELD AND PERCENTAGE OF U.S. #1 SWEETPOTATO ROOTS IN TRIALS AT SHORTER, CULLMAN, AND CLANTON, 1993**

Selection	Shorter		Cullman		Clanton	
	US #1	Total Market	US #1	Total Market	US #1	Total Market
<b>Standard Varieties</b>						
Beauregard ....	453	658	416	1,120	-	-
Nugget .....	132	218	361	658	-	-
Jewel .....	212	346	324	742	-	-
Hernandez ....	367	532	410	750	-	-
Cordner .....	259	409	282	655	-	-
Ga. Jet .....	235	492	284	1,016	55	478
Red Star .....	313	471	139	499	39	291
Gold Star .....	305	559	217	703	67	308
Average .....	285	461	304	768	54	359
<b>Breeding lines</b>						
L-87-54 .....	276	456	-	-	-	-
L-87-58 .....	337	568	387	1016	164	490
L-87-95 .....	476	674	434	738	102	479
L-89-54 .....	2	-	231	871	48	242
W-279 .....	302	491	187	436	-	-
W-210 .....	-	-	222	501	-	-
L-87-59 .....	301	660	284	705	63	268
W-274 .....	208	360	461	765	136	378
N-75 .....	-	-	266	814	-	-
L-89-13 .....	-	-	272	665	-	-
Average .....	317	535	305	723	103	371

<sup>1</sup>U.S. #1 = Roots two to 3.5 inches in diameter; three to nine inches in length; and well shaped and free of defects.

<sup>2</sup>Not grown at this location.



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