Spring 2009 and 2010 Commercial Fruit and Vegetable Variety Trials

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Names of chemicals are mentioned only for describing the production practices used. This represents neither a recommendation nor an endorsement of these products.

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Introduction: Interpreting Vegetable Varieties Performance Results

Edgar Vinson and Joe Kemble

The spring 2009 and 2010 fruit and vegetable regional bulletin includes research results from Auburn University and North Carolina State University. The information provided by this report must be studied carefully in order to make the best selections possible. Although yield is a good indicator of varietal performance, other information must be studied. The following provides a few tips to help producers adequately interpret results in this report.

Open pollinated or hybrid varieties. In general, hybrids (also referred to as F_1) are earlier and produce a more uniform crop. They have improved disease, pest, or virus tolerance/resistance. F_1 varieties are often more expensive than open pollinated varieties (OP), and seeds cannot be collected from one crop to plant the next. Despite the advantages hybrids offer, OP are still often planted in Alabama. Selecting a hybrid variety is the first step toward earliness and quality.

Yield potential. Yields reported in variety trial results are extrapolated from small plots. Depending on the vegetable crop, plot sizes range between 100 to 500 square feet. Yields per acre are estimated by multiplying plot yields by corrective factors ranging from 100 to 1,000. Small errors are thus amplified, and estimated yields per acre may not be realistic. Therefore, locations cannot be compared by just looking at the range of yields actually reported. However, the relative differences in performance among varieties are realistic, and can be used to identify best-performing varieties.

Statistical interpretation. The coefficient of determination (R^2), coefficient of variation (CV) and least significant difference (LSD, 5 percent) are reported for each test. These numbers are helpful in separating the differences due to small plots (sampling error) and true (but unknown) differences among entries.

R^2 values range between 0 and 1. Values close to 1 suggest that the test was conducted under good conditions and most of the variability observed was mainly due to the effect of variety and replication. Random, uncontrolled errors were of lesser importance. CV is an expression of yield variability relative to yield mean. Low CVs (under 20 percent) are desirable but are not always achieved.

There must be a minimum yield difference between two varieties before one can statistically conclude that one variety actually performs better than another. This is known as the least significant difference (LSD). When the difference in yield is less than the LSD value, one cannot conclude that there is any real difference between two varieties. For example, in the cantaloupe trial presented in this issue conducted at the North Alabama Horticulture Research Center, 'Earlichamp' yielded 77,530 pounds per acre, while 'Home Run' and 'Goddess' yielded 68,868 and 65,156 pounds per acre, respectively. Since there was less than a 11,383 difference between 'Home Run' and 'Goddess', there is no statistical difference between these two varieties. However, the yield difference between 'Earlichamp' and 'Goddess' was 12,374, indicating that there is a real difference between these two varieties. From a practical point of view, producers should place the most importance on lsd values when interpreting results.

Testing conditions. AU vegetable variety trials are conducted under standard, recommended commercial production practices. If the cropping system to be used is different from that used in the trials, the results of the trials may not apply. Information on soil type (Table 1), planting dates, fertilizer rates, and detailed spray schedule are provided to help producers compare their own practices to the standard one used in the trials and make relevant adjustments.

Ratings of trials. At each location, variety trials were rated on a 1 to 5 scale, based on weather conditions, fertilization, irrigation, pest pressure and overall performance (Table 2). Results from trials with ratings of 2 and under are not reported. These numbers may be used to interpret differences in performance from location to location. The overall rating may be used to give more importance to the results of variety performance under good growing conditions.

Where to get seeds. Because seeds are alive, their performance and germination rate depends on how old they are, where and how they were collected, and how they have been handled and stored. It is always preferable to get certified seeds from a reputable source, such as the ones listed in Seed Sources, page 29.

Several factors other than yield have to be considered when choosing a vegetable variety from a variety trial report. The main factors are type, resistance and tolerance to diseases, earliness, and of course, availability and cost of seeds. It is always better to try two to three varieties on a small scale before making a large planting of a single variety.

Fruit and vegetable trials on the Web. For more vegetable variety information be sure to visit our Web page at www.aaes.auburn.edu/comm/pubs/pubs-by-subject/fruits-nutsvegs.php

TABLE 1. SOIL TYPES AT THE LOCATION OF THE TRIAL

Location	Water holding capacity (in/in)	Soil type
Gulf Coast Research and Extension Center (Fairhope)	0.09-0.19	Malbis fine sandy loam
Brewton Agricultural Research Unit (Brewton)	0.12-0.14	Benndale fine sandy loam
Wiregrass Research and Extension Center (Headland)	0.14-0.15	Dothan sandy loam
Lower Coastal Plain Research and Extension (Camden)	0.13-0.15	Forkland fine sandy loam
EV Smith Research Center, Horticultural Unit (Shorter)	0.15-0.17	Norfolk-orangeburg loamy sand
Chilton Area Horticultural Substation (Clanton)	0.13-0.15	Luvernue sandy loam
Upper Coastal Plain Research and Extension Center (Winfield)	0.13-0.20	Savannah loam
North Alabama Horticultural Research Center (Cullman)	0.16-0.20	Hartsells-Albertville fine sandy loam
Sand Mountain Research and Extension Center (Crossville)	0.16-0.18	Wynnville fine sandy loam

TABLE 2. DESCRIPTION OF RATINGS

Rating	Weather	Fertilizer	Irrigation	Pests	Overall
5	Very Good	Very Good	Very Good	None	Excellent
4	Favorable	Good	Good	Light	Good
3	Acceptable	Acceptable	Acceptable	Tolerable	Acceptable
2	Adverse	Low	Low	Adverse	Questionable
1	Destructive	Very Low	Insufficient	Destructive	Useless

‘Bella Rosa’ a Beauty in North Alabama Tomato Trials, 2009

Joe Kemble, Edgar Vinson, and Arnold Caylor

A spring tomato variety trial was conducted at the North Alabama Horticulture Research Center (NAHRC) in Cullman (Tables 1 and 2). Five-week-old tomato transplants were set on May 13 onto 20-foot long plots at a within-row spacing of 1.5 feet. White plastic mulch and drip irrigation were used.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent online at http://www.aces.edu/counties.

TABLE 1. RATINGS OF THE 2009 TOMATO VARIETY TRIAL[1]

Location	NAHRC
Weather	5
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

Tomatoes were harvested, weighed, and graded four times between July 18 and August 17. Grades and corresponding fruit diameters (D) of fresh market tomato were adapted from the Tomato Grader’s Guide (Circular ANR 643 from the Alabama Cooperative Extension System) and were extra-large (D>2.9 inch), large (D>2.5 inch), and medium (D>2.3 inch). Marketable yield was the sum of extra-large, large, and medium grades (Table 3).

‘Talladega’, ‘Bella Rosa’, and ‘Phoenix’ produced total yields that were significantly higher than the market standard variety ‘BHN 640’. All varieties produced the most fruit in the large or medium categories. In the large category, ‘Talladega’ produced the highest yields though they were statistically similar to ‘Bella Rosa’ and ‘Phoenix’. The fruit size of ‘BHN 640’ is typically medium; however, in this category, ‘Talladega’ had a medium-size fruit yield that was statistically higher than ‘BHN 640’. ‘Mountain Glory’ produced cull fruit weight that was statistically lower than ‘Nico’, Redline, and ‘BHN 640’. All others were statistically similar to ‘Mountain Glory’.

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED TOMATO VARIETIES

Variety	Type[1]	Seed source	Plant habit[2]	Fruit color[3]	Days to harvest [3]	Disease claims[4]	Years evaluated
Bella Rosa	F_1/FM	Sakata	Det	Red	74	FW 1-2,TSWV,VW	07-09
BHN 640	F_1/FM	BHN	Det	Red	75	FW 1-3,TSWV,VW	03-09
Carson	F_1/FM	Sieger	Det.	Red	M	FCR,VW,St,TSWV	09
Phoenix	F_1/FM	Seminis	Det	Red	M	ASC,FW 1-2,St,VW	06,08,09
Mountain Glory	F_1/FM	Rogers/Sieger	Det	Red	M	FW 1-2.VW,St,TSWV	09
Nico	F_1/FM	Harris Moran	Det	Red	M	FW,VW,TSWV,Nt	05-07,09
Redline	F_1/FM	Rogers/Sieger	Det.	Red	M	FW 1-3,VW, St,TSWV	09
Talladega	F_1/FM	Seedway	Det.	Red	76	FW 1-2,St,TSWV,VW	07-09

[1] Type: F1 = Hybrid, FM = Fresh market; [2] Plant habit: Det. = Determinate; [3] Days to Harvest: M = Midseason; [4]Disease claims: FW = Fusarium Wilt; FCW = Fusarium Crown Wilt; VW = Verticillium Wilt; ASC = Alternaria Stem Canker; St = Stemphylium (grey leaf spot), TSWV = Tomato Spotted Wilt Virus. Note: Numbers following disease claims indicate races. — = not found, from seed catalog.

TABLE 3. YIELD OF SELECTED TOMATO VARIETIES

Variety	Total marketable yield	Total marketable number	Extra large weight	Extra large number	Large weight	Large number	Medium weight	Medium number	Cull weight
	lb/A	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb/A*
Talladega	43,616	79,286	1,035	1,452	24,244	35,818	19,173	41,382	13,047
Bella Rosa	34,604	63,396	1,401	1,543	19,617	31,089	13,585	30,764	12,067
Phoenix	33,712	57,918	1,373	1,543	19,060	27,608	13,279	28,768	13,901
Nico	31,621	62,451	628	726	15,377	24,912	15,515	36,028	15,807
Redline	31,597	56,686	1,294	1,452	13,367	19,478	13,133	28,586	14,208
Carson	31,182	55,819	1,343	726	14,131	19,828	17,076	37,117	11,773
Mt. Glory	26,423	49,980	811	908	9,826	16,373	13,793	31,097	9,507
BHN 640	25,189	45,900	441	545	10,456	15,493	13,524	31,490	14,958
R^2	***0.80***	***0.86***	***0.80***	***0.72***	***0.71***	***0.72***	***0.63***	***0.63***	***0.52***
CV	***17***	***13***	***47***	***56***	***25***	***24***	***17***	***16***	***24***
LSD	***9,270***	***12,688***	***884***	***1,169***	***5,940***	***8,545***	***3,703***	***7,786***	***4,749***

CANTALOUPE

New Cantaloupe Varieties to Challenge Market Standard, 2010

Joe Kemble, Edgar Vinson, and Arnold Caylor

A small melon trial was conducted at the North Alabama Horticulture Research Center (NAHRC) in Cullman, Alabama (Tables 1 and 2).

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent online at http://www.aces.edu/counties/.

TABLE 1. RATINGS OF THE 2010 CANTEOUPE VARIETY TRIAL[1]

Location	NAHRC
Weather	5
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

A pre-plant application of calcium nitrate was applied at a rate of 60 pounds per acre. Fertilization consisted of weekly, alternating injections of calcium nitrate or 20-20-20 at a rate of 10 pounds N per acre. Pesticides were applied weekly beginning on May 17 through harvest.

Cantaloupe varieties were direct seeded on April 26 into 30 foot rows with 6 feet between rows and a within row spacing of 2 feet. Drip irrigation and black plastic mulch were used. Melons were harvested four times from July 9 through July 22. Melons were harvested at half slip stage of maturity (Table 3).

Several new varieties were compared to the market standard 'Athena' (Table 3). In total marketable yield, the top four melon varieties produced yields statistically higher than 'Athena'. 'Earlichamp' produced the highest yield, which was statistically similar to 'Home Run' but statistically higher than all other varieties. 'Earlichamp' topped the list in total number of marketable fruit as well. In this category, 'Earlichamp' was statistically higher than all others with the excep-

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED CANTALOUPE VARIETIES

Variety	Type[1]	Seed source	Rind aspect[2]	Flesh color[3]	Days to harvest	Disease claims[4]
Aphrodite	F_1	Seedway/Novartis	E	O	72	FW 0-2, PM 1
Athena	F_1	Seedway/Novartis	E	O	80	FW 0-2, PM 1-2
Atlantis	F_1	Sakata/Siegers	E	O	74	FW 0-2, PM 1-2
Carousel	F_1	Hollar	E	O	83	FW 0-2, PM 0-2
Dutchess	F_1	Holmes	E	O	75	PM
Earlichamp	F_1	Hollar	E	O	78	FW 0,2 ,PM
Goddess	F_1	Seedway	E	O	70	FW 0-2, PM 1-2
Grand Slam	F_1	Holar/Siegers	E	O	75	FW 0-2, PM 1-2
Halona	F_1	Johnny's	E	O	73	FW,PM
Hanna's Choice	F_1	Johnny's	E	O	73	FW,PM
Home Run	F_1	Hollar	E	O	82	FW 0-2,PM
Orange Sherbet	F_1	Palmer	E	O	83	FW 1-2, PM 2
Rock Star	F_1	Hollar	E	O	73	FW 0-2,PM 1-2
Strike	F_1	Hollar	E	O	85	FW 0-2, PM
Verona	F_1	Hollar	E	O	76	FW 0-2, PM 1-2

[1] Type: F_1 = Hybrid variety. [2] Rind aspect: E= Eastern. [3] Flesh color: O = Orange. [4] Disease claims: FW = Fusarium Wilt, PM = Powdery Mildew. Note: Numbers following disease claims indicate races.

tion of 'Duchess'. 'Athena' was similar to many varieties in this category with the exception of 'Earlichamp, 'Duchess', and 'Carousel'. In a commercial setting, individual melons should weight in the range of 4 to 6 pounds. 'Athena' was slightly above this range while 'Earlichamp', 'Duchess', 'Carousel', and 'Hanna's Choice' were within this range. Though it produced the smallest total marketable yield and total marketable number, 'Verona' had a soluble solids reading that was significantly higher than all other varieties. Length and width of the seed cavity of melons taken together provide a means of determining the amount of edible flesh in melons. The smaller the seed cavity the more edible flesh there is for consumption. 'Carousel' and 'Earlichamp' produced melons with the smallest seed cavities. Other varieties that produced smaller seed cavities were 'Athena' and 'Homerun'.

TABLE 3. YIELD AND QUALITY OF SELECTED CANTELOUPE VARIETIES

Variety	Total marketable yield	Total marketable number	Individual fruit weight	Fruit length	Fruit width	Soluble solids	Seed cavity length	Seed cavity width
	lb/A	*no/A*	*lb*	*in*	*in*	*brix*	*in*	*in*
Earlichamp	77,530	13,976	5.56	7.16	6.50	12.63	4.25	2.75
Home Run	68,868	10,164	6.78	8.03	6.81	10.28	4.97	2.75
Goddess	65,156	9,529	6.93	8.34	7.19	12.30	5.25	2.56
Duchess	63,015	12,614	4.97	7.41	6.56	12.59	4.34	2.72
Halona	62,709	8,077	7.73	9.10	7.06	11.40	5.47	2.78
Carousel	59,486	10,618	5.60	6.63	6.41	12.10	4.06	2.63
Grand Slam	58,171	7,351	7.94	9.63	7.25	12.50	6.09	2.81
Aphrodite	54,414	6,806	7.97	8.97	7.78	11.55	5.94	3.66
Hanna's Choice	54,283	9,620	5.62	7.88	6.13	10.97	5.21	2.88
Strike	51,430	7,986	6.33	8.31	6.97	11.93	5.13	2.72
Atlantis	51,292	6,534	8.04	8.78	7.03	11.63	5.75	2.84
Rock Star	51,240	5,264	7.43	9.00	7.71	.	5.67	2.92
Athena	48,172	7,079	6.45	7.84	6.56	12.05	4.84	2.72
Orange Sherbert	42,795	5,082	8.85	10.41	7.63	11.85	7.13	3.44
Verona	35,676	4,265	7.93	9.33	7.50	13.90	5.83	3.63
R^2	***0.44***	***0.64***	***0.74***	***0.90***	***0.60***	***0.60***	***0.90***	***0.60***
CV	***29***	***30***	***13***	***7***	***6***	***10***	***8***	***12***
LSD	***11,383***	***3,267***	***0.61***	***0.30***	***0.38***	***0.80***	***0.29***	***0.24***

Experimental Tomato Lines Perform Well, 2010

Joe Kemble, Edgar Vinson, Randy Akridge, and Arnold Caylor

Spring tomato variety trials were conducted at the Brewton Agricultural Research Unit (BARU) in Brewton and the North Alabama Horticulture Research Center (NAHRC) in Cullman (Tables 1 and 2). At both locations, five-week-old tomato transplants were set on May 1 at NAHRC and on May 26 at BARU onto 20-foot-long plots at a within-row spacing of 1.5 feet. White plastic mulch and drip irrigation were used.

TABLE 1. RATINGS OF THE 2010 TOMATO VARIETY TRIAL[1]

Location	BARU	NAHRC
Weather	5	5
Fertility	5	5
Irrigation	5	5
Pests	5	5
Overall	5	5

[1] See introduction for description of ratings scales.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. At BARU, 5-10-15 was applied preplant on March 24 at a rate of 400 pounds per acre. Plants received weekly, alternating injections of potassium nitrate or calcium nitrate (at a rate of 15 pounds per acre) from May 18 through July 15. Pesticide application consisted of combinations of an insecticide and fungicide applied weekly from May 26 through July 9.

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED TOMATO VARIETIES

Variety	Type[1]	Seed source	Plant habit[2]	Fruit color[3]	Days to harvest[3]	Disease claims[4]	Years evaluated
Amelia	F_1/FM	Harris Moran	Det	Red	80	FW 1-3,TSWV,VW	03-08,10
Bella Rosa	F_1/FM	Sakata	Det	Red	74	FW 1-2,TSWV,VW	07-08,10
BHN 602	F_1/FM	BHN	Det	Red	75	FW 1-3,TSWV,VW	2010
BHN 640	F_1/FM	BHN	Det	Red	75	FW 1-3,TSWV,VW	03-10
Crista	F_1/FM	Harris Moran	Det	Red	74	FW 1-3,NE,TSWV,VW	06-10
Finishline	F_1/FM	Syngenta/Rogers	Det	Red	75	FW 1-3,St,TSWV,VW	2010
Fletcher	F_1/FM	Bejo	Det	Red	74	NE,TSWV,VW	2010
Florida 47	F_1/FM	Seminis	Det	Red	75	ASC,FW 1-2,St,VW	97-99,02-07
Linda	F_1/FM	Sakata	Det	Red	75	ASC,FW 1-2,St,VW	2010
Mt. Glory	F_1/FM	Harris	Det	Red	70	FW 1-2,St,TSWV,VW	2010
Primo Red	F_1/FM	Harris Moran	Det	Red	M	FW 1-2,ToMV,TSWV,VW	2010
Quincy	F_1/FM	Seminis	Det	Red	M	ASC,FW 1-2,St,TSWV,VW	06,10
Redline	F_1/FM	Syngenta/Rogers	Det	Red	M	FW 3,TSWV	2010
Rocky Top	F_1/FM	Syngenta/Rogers	Det	Red	74	—	2010
Scarlet Red	F_1/FM	Harris Moran	Det	Red	M	ASC,FW 1-2,St,VW	2010
Sunkeeper	F_1/FM	Syngenta/Rogers	Det	Red	M	—	2010
Tribute	F_1/FM	Sakata	Det.	Red	M	—	2010
XTM 5356	F_1/FM	Sakata	Det.	Red	M	—	2010
XTM 5378	F_1/FM	Sakata	Det.	Red	M	—	2010

[1] Type: F1 = Hybrid, FM = Fresh market; [2] Plant habit: Det. = Determinate; [3] Days to Harvest: M = Midseason; [4] Disease claims: FW = Fusarium Wilt; VW = Verticillium Wilt; ASC = Alternaria Stem Canker; St = Stemphylium (grey leaf spot), TSWV = Tomato Spotted Wilt Virus; ToMV = Tomato Mosaic Virus. Note: Numbers following disease claims indicate races. — = not found, from seed catalog.

At NAHRC, plants received weekly injections of calcium nitrate at a rate of 10 pounds per acre. Pesticides were applied weekly from May 24 to July 15. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent (see http://www.aces.edu/counties/).

Tomatoes were harvested, weighed, and graded four times between July 14 and August 2 at BARU and four times between July 18 through August 11 at NAHRC. Grades and corresponding fruit diameters (D) of fresh market tomato were adapted from the Tomato Grader's Guide (Circular ANR 643 from the Alabama Cooperative Extension System) and were extra-large (D>2.9 inch), large (D>2.5 inch) and medium (D>2.3 inch). Marketable yield was the sum of extra-large, large, and medium grades (Table 3).

At BARU, 'Linda', 'Tribute', and the market standard 'Florida 47' produced the three highest total marketable yields though they were not significantly different. At this location all varieties were statistically similar to 'Florida 47' with the exceptions of 'BHN 602', 'Crista', and 'Sunkeeper'. In the total marketable number, 'Florida 47' topped the list. Marketable fruit number for 'Florida 47' was significantly different from 'Redline', 'BHN 640', 'BHN 602', 'Crista', and 'Sunkeeper'

At NAHRC, the three highest producers in total marketable yield were 'Tribute', 'Amelia', and 'XTM 5378'. Their yields were similar to most other varieties but significantly higher than 'Scarlet Red' and 'Fletcher'. There yields were not significantly different from most other varieties with the exception of 'Scarlet Red' and 'Fletcher'. In total marketable number, 'Tribute' produced a significantly higher number of marketable fruit on a per acre basis than most varieties with the exception of 'XTM 5378', BHN 602', 'XTM 5356', 'Primo Red', and Mt. Glory.

It is important to note that some varieties produced the highest yields and fruit number at both locations. The variety 'Tribute' produced the second highest yield at BARU and topped the list in total marketable yield at NAHRC. The two experimental lines, 'XTM 5378' and 'XTM 5356', were among the entries with the highest marketable yield at both locations.

TABLE 3. YIELD OF SELECTED TOMATO VARIETIES

Variety	Total marketable yield	Total marketable number	Extra large weight	Extra large number	Large weight	Large number	Medium weight	Medium number	Individual fruit weight	Cull weight
	lb/A	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb*	*lb/A*
Brewton Agricultural Research Unit										
Linda	21,179	42,743	12,324	19,058	6,573	15,791	2,282	7,895	0.49	7,618
Tribute	21,144	44,831	10,769	17,243	7,942	18,967	2,432	8,621	0.47	10,400
Florida 47	20,171	47,372	8,158	13,976	7,440	17,878	4,574	15,518	0.42	6,848
XTM 5378	20,057	41,473	11,214	18,422	6,992	16,607	1,850	6,443	0.49	9,355
Finishline	19,872	40,656	11,585	18,785	6,496	15,791	1,790	6,080	0.48	9,172
XTM 5356	19,802	39,204	12,043	18,604	5,832	13,885	1,927	6,716	0.51	11,467
Bella Rosa	19,359	39,839	11,256	17,696	5,326	12,887	2,777	9,257	0.49	9,280
Amelia	18,516	40,202	8,625	13,794	6,713	15,700	3,178	10,709	0.46	7,832
Mt Glory	18,025	39,749	8,464	13,794	6,362	14,883	3,198	11,072	0.45	9,248
Redline	17,857	36,845	9,437	15,518	6,428	14,792	1,992	6,534	0.48	9,278
BHN 640	17,271	35,937	9,306	15,065	6,143	14,520	1,821	6,353	0.48	16,358
BHN 602	16,031	32,126	9,254	14,066	5,091	12,161	1,686	5,899	0.50	13,759
Crista	14,556	32,398	7,442	12,887	5,068	12,070	2,046	7,442	0.45	12,008
Sunkeeper	10,350	24,593	3,993	6,897	4,584	11,162	1,773	6,534	0.42	15,603
R^2	***0.67***	***0.60***	***0.70***	***0.70***	***0.50***	***0.40***	***0.63***	***0.62***	***0.60***	***0.70***
CV	***14***	***15***	***20***	***18***	***23***	***22***	***30***	***30***	***5***	***23***
LSD	***3,680***	***8,298***	***2,664***	***4,062***	***2,043***	***4,766***	***1,045***	***3,550***	***0.04***	***3,488***

continued

TABLE 3, CONT. TOTAL YIELD OF SELECTED TOMATO VARIETIES

Variety	Total marketable yield	Total marketable number	Extra large weight	Extra large number	Large weight	Large number	Medium weight	Medium number	Individual fruit weight	Cull weight
	lb/A	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb*	*lb/A*
North Alabama Horticulture Research Center										
Tribute	61,795	118,066	1,379	1,543	31,135	49,913	29,281	66,611	0.52	8,815
Amelia	61,299	92,384	3,212	3,176	36,724	42,562	21,363	46,646	0.67	9,295
XTM 5378	61,077	110,534	3,036	3,176	32,844	50,729	25,197	56,628	0.55	11,194
BHN 602	58,794	100,007	2,536	2,723	36,053	54,269	20,205	43,016	0.59	9,726
XTM 5356	57,422	101,368	4,377	4,719	33,237	52,544	19,808	44,105	0.57	8,523
Primo Red	56,615	99,190	5,807	5,627	29,461	45,738	21,347	47,825	0.57	14,810
Quincy	53,758	98,282	823	817	28,675	43,560	24,259	53,906	0.55	7,860
Bella Rosa	52,768	87,574	4,265	4,175	33,102	50,548	15,401	32,852	0.60	7,952
Rocky Top	51,728	86,394	4,822	4,991	29,948	44,377	16,959	37,026	0.60	7,785
Redline	51,305	92,474	3,170	3,267	28,999	46,283	19,136	42,925	0.56	8,877
Crista	50,741	86,485	3,181	3,358	29,524	44,468	18,037	38,660	0.58	7,706
Finishline	50,619	88,572	1,767	1,815	29,367	44,740	19,486	42,017	0.57	8,589
Linda	50,171	89,026	1,669	1,724	30,857	47,644	17,645	39,658	0.56	7,003
Sunkeeper	49,142	88,300	1,846	1,906	28,926	44,286	18,371	42,108	0.56	10,335
BHN 640	47,939	89,661	1,466	1,543	24,149	38,569	22,324	49,550	0.53	15,554
Mt. Glory	47,627	93,110	764	726	20,813	34,122	26,050	58,262	0.51	11,559
Scarlet Red	43,714	77,682	2,698	2,723	24,620	38,387	16,396	36,572	0.56	9,156
Fletcher	41,347	76,230	474	545	22,487	35,120	18,386	40,565	0.54	9,474
R^2	***0.34***	***0.33***	***0.52***	***0.50***	***0.43***	***0.44***	***0.35***	***0.40***	***0.43***	***0.70***
CV	***19***	***19***	***63***	***65***	***20***	***17***	***29***	***27***	***8***	***20***
LSD	***14,353***	***25,229***	***2,352***	***2,506***	***8,604***	***11,041***	***8,485***	***17,900***	***0.07***	***2,755***

Experimental Summer Squash Named, 2010

Joe Kemble, Edgar Vinson, and Jason Burkett

A summer squash variety trial was conducted at the E.V. Smith Research Center (EVSRC) Horticulture Unit in Shorter, Alabama, (Tables 1 and 2). Beds were formed and plastic mulch and drip irrigation were used. Squash varieties were direct seeded on black plastic mulch on May 13. Beds were 20 feet long on 6-foot centers. Spacing within a row was 1.5 feet.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. Plants received weekly injections, alternating between potassium nitrate and calcium nitrate (at a rate of 7 pounds N per acre) from May 13 through June 30.

For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent or go online to http://www.aces.edu/counties/.

Squash were harvested nine times between June 14 and July 2. Squash were graded as marketable or non-marketable according to the United Stated Standards for Grades of Summer Squash (U.S. Dept. Agr. G.P.O 1987-180-916:40730 AMS) (Table 3).

Recently named variety 'Spineless Perfection' (Formerly RSQ 5184) topped the list of zucchini squash in early marketable yield (Table 3). Early yield of 'Spineless Perfection' was similar to the market standard 'Spineless Beauty'. 'Spineless Beauty' was also similar to 'Payroll', 'Cashflow', and 'Paycheck'. The variety 'Paycheck' had the highest cull fruit weight but cull fruit weight was statistically similar to other varieties with the exception of 'Spineless Beauty' and RSQ

TABLE 1. RATINGS OF THE 2010 SUMMER SQUASH VARIETY TRIAL[1]

Location	EVSRC
Weather	4
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

TABLE 2. SEED SOURCE, FRUIT TYPE, AND RELATIVE EARLINESS OF SELECTED SQUASH VARIETIES

Variety	Type[1]	Seed source	Days to harvest	Disease claims[2]	Years evaluated
Yellow squash (straightneck, semi crookneck, and crookneck)					
Enterprise	F_1	Rogers Syngenta	41	—	97,99,07,10
Fortune[3]	F_1	Rogers Syngenta	39	—	99,04-07,10
Gentry	F_1	Rogers Syngenta	43	—	97-99,02-08,10
Goldprize	F_1	Rogers Syngenta	42	WMV,ZYMV	2010
Gold Star	F_1	Rogers Syngenta	42	CMV,PM	2010
Zucchini					
Cashflow	F_1	Rogers Syngenta	45	ZYMV	2010
Envy	F_1	Rogers Syngenta	45	PM, ZYMV	2010
Paycheck	F_1	Rogers Syngenta	42	CMV,PM,WMV,ZYMV	2010
Payroll	F_1	Rogers Syngenta	45	PM,WMV,ZYMV	
RQS 6144	F_1	Rogers Syngenta	—	—	2010
Spineless Perfection (RQS 5184)	F_1	Rogers Syngenta	44	PM, WMV, ZYMV	2010
Spineless Beauty	F_1	Rogers Syngenta	43	—	95-97,99,10

[1] Type: F_1 = Hybrid; OP = Open Pollinated. [2] Disease claims: CMV = Cucumber Mosaic Virus; PM = Powdery Mildew; ZYMV = Zucchini Yellow Mosaic Virus ; WMV = Watermelon Mosaic Virus. [3] Precocious Variety. — = none; from seed catalogues.

6144. 'Cashflow' and 'Payroll' produced higher numbers of marketable fruit than 'Spineless Beauty' and 'Paycheck' early in the season. 'Spineless Perfection' produced significantly higher number of marketable fruit than 'Spineless Beauty' early in the season as well.

There were no differences for yellow summer squash in early marketable yield though 'Gold Star' topped the list in this category. The variety 'Gentry' produced the highest number of early marketable fruit as well as the highest weight of cull fruit. The variety 'Gold Prize' produced the lowest weight of cull fruit. Cull fruit weight was significantly lower than all other varieties with the exception of 'Gold Star'. No differences in individual fruit weight were noted.

In total marketable yield, the same varieties topped the list and in the same order as in early marketable yield (Table 3). By the end of the season there were fewer differences noted in marketable yield. 'Spineless Perfection' had a significantly higher total marketable yield than all other zucchini varieties. The remaining varieties were similar to the market standard 'Spineless Beauty'. In total marketable number 'Cashflow' topped the list as it had earlier in the season. For the season, 'Cashflow' produced a significantly higher number of fruit per acre than 'Spineless Beauty', 'Envy', and RSQ 6144.

TABLE 3. EARLY AND TOTAL YIELD OF SELECTED YELLOW SUMMER SQUASH AND ZUCCHINI VARIETIES

Variety	Type[1]	Early marketable yield	Early marketable number	Individual fruit weight	Cull
		lb/A	*no/A*	*lb*	*lb/A*
Spineless Perfection (RQS 5184)	Z	7,268	10,799	0.7	1,697
Payroll	Z	7,050	12,251	0.6	2,158
Cashflow	Z	6,726	12,887	0.5	2,116
Spinelss Beauty	Z	6,011	8,984	0.7	1,312
Paycheck	Z	4,612	9,438	0.5	2,458
Envy	Z	2,056	5,354	0.4	1,865
RSQ 6144	Z	1,232	2,995	0.5	475
Gold Star	Y	3,458	13,431	0.3	1,142
Gentry	Y	3,434	14,883	0.2	1,787
Enterprise	Y	3,334	12,796	0.3	1,729
Fortune	Y	3,268	11,525	0.3	2,114
Goldprize	Y	2,973	9,620	0.3	571
R^2		***0.84***	***0.76***	***0.77***	***0.44***
CV		***23***	***21***	***23***	***49***
LSD		***3,085***	***1,403***	***0.14***	***1,129***
Variety	**Type[1]**	**Total marketable yield**	**Total marketable number**	**Individual fruit weight**	**Cull**
		lb/A	*no/A*	*lb*	*lb/A*
Spineless Perfection (RQS 5184)	Z	28,385	23,867	1.1	4,523
Payroll	Z	15,509	27,497	0.6	3,939
Cashflow	Z	15,440	28,314	0.5	5,876
Spinelss Beauty	Z	13,279	20,056	0.7	4,666
Paycheck	Z	13,225	24,230	0.5	4,490
Envy	Z	9,030	18,695	0.5	6,289
RSQ 6144	Z	7,299	13,794	0.5	4,115
Fortune	Y	9,755	34,213	0.3	4,622
Gentry	Y	9,449	42,653	0.2	5,097
Enterprise	Y	8,944	33,668	0.3	4,494
Gold Prize	Y	7,842	27,044	0.3	2,462
Gold Star	Y	7,467	30,946	0.2	4,005
R^2		***0.43***	***0.80***	***0.57***	***0.35***
CV		***55***	***15***	***55***	***32***
LSD		***9341***	***6154***	***0.37***	***2103***

[1] Type: Z = Zucchini; Y = Yellow squash (straightneck, semi crookneck, and crookneck).

Experimental Bell Peppers Perform Well in South Alabama, 2010

Joe Kemble, Edgar Vinson, and Randy Akridge

A spring bell pepper variety trial was conducted at the Brewton Agricultural Research Unit (BARU) in Brewton, Alabama. Five-week-old bell pepper transplants were set onto 20-foot-long plots at a within-row spacing of 1.5 feet on May 26. White plastic mulch and drip irrigation were used.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. Preplant application of fertilizer consisted of 5-10-15 on March 29 at a rate of 400 pounds per acre. Plants received weekly, alternating injections of potassium nitrate or calcium nitrate (at a rate of 15 pounds per acre) from June 1 through July 15. Pesticide application consisted of combinations of an insecticide and a fungicide applied weekly from June 11 through July 9. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent (see http://www.aces.edu/counties/).

Bell peppers were harvested, weighed, and graded three times between July 14 and July 26. Grades for fresh market bell pepper were adapted from the Sweet pepper Grader's Guide (Circular ANR 783 from the Alabama Cooperative Extension System). Marketable yield was the sum of Fancy, No. 1 and No. 2 grades (Table 3).

TABLE 1. RATINGS OF THE 2010 BELL PEPPER VARIETY TRIAL[1]

Location	BARU
Weather	5
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED BELL PEPPER VARIETIES

Variety	Type[1]	Seed source	Fruit color[2]	Days to harvest	Disease claims[3]	Years evaluated
Aristotle	F_1	Seminis	G-R	74	BSp1-3,PVY,Stip	01,10
Camelot X3R	F_1	Seminis	G-R	74	TbMV	94-97,99,01,10
Declaration	F_1	Harris Moran	G-R	75	CMV,PRR,TSWV, BSp1-3,5	2010
PS 09942815	F_1	Seminis	G-R	—	TbMV,TSWV	2010
PS 9915776	F_1	Seminis	G-R	74	BSp 1-5, ToMV	2010
PS 9927141	F_1	Seminis	G-R	74	BSp 1-5, ToMV	2010
PS 9928302	F_1	Seminis	G-R	74	BSp 1-5, ToMV	2010
Plato	F_1	Seminis	G-R	74	BSp1-3,PVY,TSWV, TbMV	2010
Sirius	F_1	Sieger/Western Seeds	G-Y	—	BSp1,2,TSWV	2010
Stiletto	F_1	Rogers/Syngenta	G-R	70	BSp1-3,TSWV	2010
Sentry	F_1	Rogers/Syngenta	G-R	70	BSp1-3,PVY,Stip, TbMV	97,99,10
Vanguard	F_1	Harris Moran	G-R	—	BSp1-5,CMV,PRR	2010

[1] Type: F_1 = hybrid variety. [2] Fruit color: G-R = Green to Red; G-Y = Green to Yellow. [3] Disease Claims: BSp = Bacterial Spot; CMV = Cucumber Mosaic Virus; PRR = Phytophthora Root Rot; PVY = Potato Virus Y; Stip = Stip or Pepper spot; TbMV = Tobamo Virus; TSWV = Tomato Spotted Wilt Virus. Note: Numbers following disease claims indicate races. — = none; from seed catalogues.

There were few differences in total marketable yield and total marketable number. Two experimental lines, PS 9915776 and PS 9927141, topped the list in both categories. Both experimental lines had yields that were significantly higher than the standard variety 'Camelot X3R'. Total marketable number of these two lines was statistically similar to 'Camelot X3R'. PS 09942815 had the highest production in the number of US fancy fruit. Two other experimental lines, PS 9915776 and PS 9927141, produced fruit numbers in the category that was statistically similar to PS 09942815.

TABLE 3. YIELD AND QUALITY OF SELECTED BELL PEPPER VARIETIES

Variety	Total marketable yield	Total marketable number	U.S. fancy number	U.S. fancy weight	U.S. No.1 number	U.S. No.1 weight	U.S. No.2 number	U.S. No.2 weight
	lb/A	*no/A*	*no/A*	*lb/A*	*no/A*	*lb/A*	*no/A*	*lb/A*
PS 9915776	22,018	42,195	109	39	20,445	13,606	21,641	8,268
PA 9927141	21,040	43,065	0	0	20,553	12,278	22,511	8,701
Declaration	19,918	39,596	109	39	19,901	13,542	15,986	6,247
PS 09942815	19,896	37,308	326	166	21,206	13,391	15,769	6,097
Sirius	18,855	38,280	0	0	16,421	10,321	21,859	8,475
Vanguard	18,578	32,081	109	44	19,357	13,266	12,615	5,180
Aristotle	18,484	32,801	0	0	19,357	13,293	12,724	5,156
PA 9928302	17,972	31,320	0	0	19,901	13,204	11,419	4,735
Stiletto	17,379	39,585	0	0	11,201	6,560	28,384	10,744
Plato	16,154	32,842	0	0	14,355	8,922	18,379	7,183
Camelot	15,049	36,125	0	0	15,768	9,139	17,074	5,869
Sentry	14,563	32,190	0	0	10,983	6,206	21,206	8,299
R^2	***0.35***	***0.47***	***0.57***	***0.62***	***0.35***	***0.40***	***0.68***	***0.70***
CV	***22***	***17***	***28***	***199***	***33***	***36***	***23***	***4***
LSD	***5,871***	***8,700***	***74***	***68***	***3,799***	***5,838***	***2,763***	***2,217***

Seeded Watermelon Trial Resumes at North Alabama, 2010

Joe Kemble, Edgar Vinson, and Arnold Caylor

A seeded watermelon trial was conducted at the North Alabama Horticulture Research Center (NAHRC) in Cullman.

Five-week-old seedless watermelon transplants were set on April 27, 2010. Transplants were spaced ten feet between rows and five feet within a row. Drip irrigation and black plastic mulch were used.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent (see http://www.aces.edu/counties/).

Fertilization consisted of a preplant application of 13-13-13 at a rate of approximately 400 pounds per acre on April 20. Fertilization after planting consisted of weekly injections of calcium nitrate at a rate of 40 pounds per acre.

Watermelons were harvested on July 22 and were graded according to the Watermelon Grader's Guide (Circular ANR-681 from the Alabama Cooperative Extension System) and marketable yield was determined (Table 3). Two watermelons from each plot were used to measure soluble solids (sweetness), hollow heart, and rind thickness. A handheld digital refractometer was used to measure soluble solids. Watermelons with reading below 10 are not considered sweet.

'Legacy' and 'Gold Strike' produced the highest total marketable yields, which were significantly higher than the yields of 'Anthem' and the market standard 'Stargazer' but statistically similar to all other varieties. 'Carmen', 'Royal Sweet', 'Pure Orange', and 'Greystone' had total yields that were statistically higher than 'Stargazer'. 'Royal Sweet' produced the highest number of fruit per acre. In this category 'Royal Sweet' was similar to 'Carmen', 'Legacy', 'Pure Orange', and 'Gold Strike' but statistically higher than 'Greystone', 'Matador', 'Anthem' and 'Stargazer'.

There were few differences in individual fruit weight. Individual fruit weight of 'Stargazer' was statistically lower than other varieties with the exception of 'Matador' and 'Anthem'. Hollow heart was not found in 'Carmen', 'Pure Orange', or 'Anthem'. In the soluble solids category, all varieties had readings that were above 10. Fruit length and fruit width, when considered together provide an indication of fruit shape. In this trial, all varieties appeared to comply with their respective shape descriptions provided by seed companies (Table 2).

TABLE 1. RATINGS OF THE 2010 SEEDED WATERMELON TRIAL[1]

Location	NAHRC
Weather	5
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED SEEDED WATERMELON VARIETIES

Variety	Type[1]	Seed source	Fruit shape	Flesh color[2]	Days to harvest	Disease claims[3]	Years evaluated
Anthem	F_1,AS	Seedway	Blocky	R	84	Ant, FW 1	2010
Carmen	F_1	Harris	Round	R	83	Ant 1, FW	2010
Greystone	F_1, CG	Hollar	Elongated	R	84	Ant, FW	2010
Gold Strike	F_1, AS	Willhite	Blocky	O	80	—	2010
Legacy	F_1, AS	Willhite	Elongated	R	85	—	2010
Matador	F_1, P	Seedway	Elongated	R	87	Ant 1,3, FW 0-1	2010
Pure Orange	F_1, AS	Willhite	Oval	O	83	FW	2010
Royal Sweet	F_1, AS	Seminis	Elongated	R	—	Ant 1, FW 1	2010
Stargazer	F_1, AS	Siegers	Elongated	R	85	Ant 1	98-01,03,10

[1] Type: F1 = Hybrid, AS = Allsweet, CS = Crimson Sweet, CG = Charleston Grey, P= Peacock; [2] Flesh color: R = Red; O = Orange; [3] Disease claims: Ant = Anthracnose; FW = Fusarium Wilt. Note: Numbers following disease claims indicate races.
— = not found, from seed catalog.

TABLE 3. YIELD AND QUALITY OF SELECTED SEEDED WATERMELON VARIETIES

Variety	Total marketable yield	Total marketable number	Individual fruit weight	Fruit length	Fruit width	Rind thickness	Hollow heart	Soluble solids
	lb/A	*no/A*	*lb*	*in*	*in*	*in*	*in*	*brix*
Legacy	71,177	5,245	13.53	18.29	9.47	0.72	0.75	10.50
Gold Strike	70,972	5,144	13.69	15.50	9.50	0.69	1.00	10.18
Carmen	69,680	5,341	12.89	13.47	11.35	0.72	0.00	10.94
Royal Sweet	69,309	5,379	12.34	16.66	10.13	0.66	0.88	11.38
Pure Orange	67,782	5,229	12.91	16.19	10.19	0.66	0.00	10.70
Greystone	65,398	5,096	12.41	19.91	9.10	0.78	0.38	10.75
Matador	56,455	4,777	11.58	17.75	8.91	0.69	0.13	11.60
Anthem	50,954	4,471	11.14	12.94	10.13	0.66	0.00	11.10
Stargazer	37,291	4,334	8.76	17.35	8.82	0.66	0.50	11.18
R^2	***0.70***	***0.67***	***0.60***	***0.85***	***0.88***	***0.41***	***0.41***	***0.50***
CV	***22***	***10***	***19***	***6***	***4***	***11***	***158***	***5***
LSD	***19,950***	***726***	***3.38***	***1.50***	***0.50***	***0.11***	***0.92***	***0.85***

Seedless Watermelon Varieties in North Alabama, 2010

Joe Kemble, Edgar Vinson, and Arnold Caylor

A seedless watermelon trial was conducted at the North Alabama Horticulture Research Center (NAHRC) in Cullman (Tables 1 and 2).

Drip irrigation and black plastic mulch were installed as rows were formed. Five-week-old seedless watermelon transplants were set on April 27, 2010. Seedless watermelons do not produce viable pollen; therefore, a seeded variety was planted along with the seedless varieties to serve as a pollenizer. Although any seeded watermelon can serve as a pollenizer, seed companies have bred watermelons to serve specifically as pollenizers. In this study 'Companion' was used as a pollenizer variety. One 'Companion' watermelon transplant was set for every two seedless transplants set within a row to insure proper pollination.

Soils were fertilized according to the recommendations of the Auburn University Soil Testing Laboratory. For current recommendations for pest and weed control in vegetable production in Alabama, consult your county extension agent (see http://www.aces.edu/counties/).

Fertilization consisted of a pre-plant application of 13-13-13- at a rate of approximately 400 pounds per acre on April 20. Fertilization after planting consisted of weekly injections of calcium nitrate at a rate of 40 pounds per acre.

Watermelons were harvested on July 22 and were graded according to the Watermelon Grader's Guide (Circular ANR-681 from the Alabama Cooperative Extension System) and marketable yield was determined (Table 3). Two watermelons from each plot were used to measure soluble solids (sweetness), hollow heart, and rind thickness. A hand-held digital refractometer was used to measure soluble solids.

TABLE 1. RATINGS OF THE 2010 SEEDLESS WATERMELON TRIAL[1]

Location	NAHRC
Weather	5
Fertility	5
Irrigation	5
Pests	5
Overall	5

[1] See introduction for description of ratings scales.

TABLE 2. SEED SOURCE, FRUIT CHARACTERISTICS, AND RELATIVE EARLINESS OF SELECTED SEEDLESS WATERMELON VARIETIES

Variety	Type[1]	Seed source	Fruit shape	Flesh color[2]	Days to harvest	Disease claims[3]	Years evaluated
Declaration	F_1,CS	Nunhems/Sieger	Oblong	R	82	—	2010
Fenway	F_1, IB	Seminis	Round	R	84	—	2010
Harmony	F_1, CS	Seedway	Oval	R	84	—	2010
Indiana	F_1, CS	Syngenta/Rogers	Oval	R	75	Ant, FW 2	2010
Lamar	F_1, IB	Hollar/Seedway	Round	R	83	—	2010
Liberty	F_1, CS	Nunhems/Sieger	Oblong	R	85	—	97-99,02-07,10
Majestic	F_1, CS	Seminis	Oval	R	—	—	2010
Orange Sunshine	F_1, CS	Burpee	Oblong	O,Y	85	—	2010
QV776	F_1, CS	Sakata	Oblong	R	90	—	2010
Ruby	F_1, CS	Seedway	Oval	R	85	FW 0	2010
Sweet Treasure	F1, CS	Sakata	Oval	R	90	Ant 1	2010
Tri-X-313	F_1, CS	Syngenta	Oval	R	85	Ant 1	96-98,02-05,07,10

[1] Type: F_1 = Hybrid, CS = Crimson Sweet, IB =Icebox; [2] Flesh color: R = Red; O = Orange, Y = Yellow; [3] Disease claims: Ant = Anthracnose; FW = Fusarium Wilt. Note: Numbers following disease claims indicate races. — = not found, from seed catalog.

Few differences were noted in total marketable yield. 'Tri-X-313', a market standard seedless variety was similar to all other varieties in the study, though it was not one of the top producing varieties this year. In total marketable number there were no statistical differences noted.

Rind thickness is an indication of how well watermelons will ship. However, though the degree of successful shipping may increase as rind thickness increases, the amount of edible flesh decreases. Rind thicknesses of 'Lamar', QV 776, 'Indiana', 'Sweet Treat', and 'Harmony' were significantly higher than that of 'Tri-X-313' while 'Liberty', 'Ruby', 'Orange Sunshine', and 'Declaration' were similar to 'Tri-X-313'.

Fruit length and fruit width, when considered together provide an indication of fruit shape. All varieties appeared to comply with their respective shape descriptions (Table 2). For example, length and width measurements for 'Lamar' were very close at 9.50 and 9.06, respectively, indicating a round watermelon.

Soluble solids readings provide an indication of sweetness. Soluble solids readings (brix) below 10 are not considered sweet. In this trial, all varieties were above 10. 'Indiana' had the highest reading at 11.90. This was statistically similar to others with the exception of 'Liberty', 'Sweet Treat', 'Ruby', and 'Orange Sunshine'. These varieties had soluble solids readings at 10.83, 10.80, 10.64 and 10.00, respectively.

TABLE 3. YIELD AND QUALITY OF SELECTED SEEDLESS WATERMELON VARIETIES

Variety	Total marketable yield	Total marketable number	Individual fruit weight	Fruit length	Fruit width	Rind thickness	Hollow heart	Soluble solids
	lb/A	*no/A*	*lb*	*in*	*in*	*in*	*in*	*brix*
Liberty	53,546	4,676	11.45	11.75	9.60	0.69	0.00	10.83
Harmony	50,632	4,382	11.55	11.10	9.25	0.72	0.00	11.00
Majestic	50,060	4,515	11.08	11.60	9.19	0.60	0.00	11.75
Sweet Treasure	50,038	4,147	12.06	11.32	8.97	0.72	0.25	10.80
Lamar	44,103	4,572	9.64	9.50	9.09	0.79	0.17	11.83
Ruby	42,719	4,103	10.41	11.50	9.35	0.66	0.38	10.64
Orange Sunshine	41,951	4,148	10.11	10.41	9.32	0.66	1.00	10.00
QV776	40,403	4,235	9.45	11.47	9.06	0.75	0.25	11.13
Indiana	38,748	4,070	9.52	10.50	9.57	0.75	0.13	11.90
Tri-X-313	38,378	3,833	10.01	11.07	9.22	0.63	0.25	11.30
Declaration	35,992	3,854	9.33	12.25	9.16	0.63	0.75	11.35
Fenway	30,674	3,674	8.34	9.63	9.22	0.50	0.00	11.00
R^2	***0.53***	***0.41***	***0.60***	***0.71***	***0.31***	***0.70***	***0.40***	***0.53***
CV	***26***	***17***	***14***	***6***	***4***	***10***	***194***	***6***
LSD	***16,307***	***1,012***	***2.00***	***0.88***	***0.50***	***0.10***	***0.74***	***0.94***

Blueberry Cultivar Evaluation, 2010

Elina Coneva, Joel Potter, Jeff Sibley, Edgar Vinson, and Arnold Caylor

Blueberries are a specialty crop of significant interest worldwide. Blueberry production in Alabama is a small, but growing industry. A rapid increase in rabbiteye blueberry acreage in the Wiregrass area of the state was recently observed.

A blueberry experimental plot was established at the North Alabama Horticultural Research Center in Cullman in 2006 to evaluate the production potential of newly released and well-established rabbiteye blueberry cultivars. The list of cultivars under test includes 'Alapaha', 'Baldwin', 'Brightwell', 'Climax', 'Ira', 'Montgomery', 'Onslow', 'Premier', 'Powder Blue', 'Tifblue', and 'Yadkin'.

TABLE 1. FLOWER BUD DENSITY AND AVERAGE YIELD PER BUSH OF SELECTED RABBITEYE BLUEBERRY CULTIVARS, 2009

Cultivar	Flower buds *no/in²*	Average yield per bush *lb*
Alapaha	1.4 abc[1]	1.7
Baldwin	1.4 ab	2.0
Brightwell	1.0 abc	2.6
Climax	1.2 abc	2.4
Ira	0.90 bc	2.4
Montgomery	1.0 abc	2.4
Onslow	0.8 c	2.4
Powderblue	0.8 c	2.0
Premier	1.5 a	1.7
Tifblue	1.4 ab	2.2
Yadkin	1.3 abc	2.4

[1] Numbers within a column followed by the same letter are not significantly different based on Fisher's LSD at $P \leq 0.10$.

The young blueberry plants produced their first crop in 2008. In 2009, harvest began early in the season for 'Alapaha', 'Climax', and 'Premier'. Cultivars 'Brightwell', 'Montgomery', and 'Tifblue' were harvested mid-season, while 'Baldwin', 'Ira', 'Onslow', 'Powderblue', and 'Yadkin' were late season ripening cultivars.

Flower bud density, expressed as number of flower buds per square inch varied from 0.8 to 1.5 buds per square inch (Table 1). 'Premier' had the highest flower bud density, while 'Onslow' and 'Powderblue' had the lowest density.

The average yield varied from 1.7 to 2.6 pounds per bush, but cultivars under test were not found to differ in terms of their yield production during 2009 (Table 1).

Rabbiteye blueberry cultivars 'Baldwin' and 'Onslow' had the largest berries with an average individual berry weight of 0.053 ounces, while 'Alapaha' produced the smallest berries, only 0.032 ounces on average (Table 2). 'Baldwin' fruit had the highest percent (3 percent) berries showing wet stem scar, and the rest of the cultivars tested had fewer wet scar fruit. 'Brightwell' was the blueberry cultivar with the highest fruit firmness (11.5 pounds per inch), which demonstrates it may be suitable for mechanical harvesting. 'Montgomery' berries were found to produce the softest fruit (9.2 pounds per inch) in comparison to the other blueberry cultivars tested. 'Premier' and 'Climax' produced the sweetest berries (15.4 and 15.2 percent respectively) during the season , while 'Yadkin' fruit had the highest pH (3.65) among all other cultivars (Table 2). Overall sensory and flavor evaluations determined 'Yadkin' to be the most palatable and aromatic rabbiteye blueberry in our test.

TABLE 2. FRUIT QUALITY CHARACTERISTICS OF SELECTED RABBITEYE BLUEBERRY CULTIVARS, 2009

Variety	Average berry weight *oz*	Wet stem scar *%*	Average fruit firmness *lb/in*	pH	Soluble solids content *%*
Alapaha	0.032 e	1.0 b	9.7 def	3.63 ab	14.5 ab
Baldwin	0.053 a	3.0 a	10.2 cde	3.34 c	12.0 bcd
Brightwell	0.042 d	1.6 b	11.5 a	3.54 abc	13.7 ab
Climax	0.045 cd	1.4 b	11.3 ab	3.51 abc	15.2 a
Ira	0.038 de	1.0 b	10.3 cd	3.50 abc	10.0 d
Montgomery	0.045 bcd	1.4 b	9.2 f	3.48 abc	13.0 abc
Onslow	0.053 a	1.4 b	10.6 bc	3.35 c	09.4 d
Powderblue	0.038 de	0.9 b	9.8 de	3.43 bc	10.8 cd
Premier	0.049 abc	1.7 ba	9.7 def	3.54 abc	15.4 a
Tifblue	0.049 abc	1.9 ba	9.6 ef	3.51 abc	14.6 ab
Yadkin	0.042 cd	1.0 b	10.6 bc	3.65 a	13.5 b

Replicated Asparagus Cultivar Evaluation, 2007-2010

Carl J. Cantaluppi

As more people move into North Carolina from northern states where asparagus is commonly grown, the demand for local sources of this crop increases. Asparagus is a high-value horticultural crop that is easy to grow and can bring in extra income for growers.

In this trial, asparagus cultivars from three breeding programs were grown (Table 1).

Proper variety selection is important for grower success so a quarter acre replicated asparagus cultivar trial was planted at the Garnett Carr farm in Roxboro, North Carolina, with 13 cultivars. Seeds were sown in the greenhouses of Aarons Creek Greenhouses in Buffalo Junction, Virginia, on January 20, 2005, and 15-week-old seedling transplants were planted into the field on May 4, 2005 in an Appling Sandy Loam soil. A randomized complete block design with 12 plants per plot and four replications was used. Since the trial was planted using seedling transplants, no harvest was taken in 2006. This was done to build food reserves in the crown of the plant to strengthen the plant for a two-week harvest in 2007.

The transplants were irrigated as needed during the first growing season only. Irrigation is normally not needed during field establishment and beyond, if establishing a field from crowns (roots) from one-year-old plants in states where the rainfall is 30 inches or more per year. However, irrigation is imperative during the establishment year with seedling transplants, since they do not have a one-year-old established root system that can tolerate periods of drought. Irrigation is also needed in areas where less than 30 inches of rainfall occur per year. Seeds were used to establish this trial because most of the cultivars were not available as crowns.

The trial was harvested for two weeks in 2007, four weeks in 2008, six weeks in 2009, and eight weeks in 2010 and will be harvested for eight weeks for each succeeding year. Research shows that harvesting asparagus that was established by planting one-year-old crowns, one year after planting, caused no reduction in subsequent yield, but provided the grower with an income one year earlier than did harvesting two years after planting. Also, in the second week after planting, the average spear weight was significantly greater in plants that were harvested the previous year than in plants not harvested the previous year. The increase in spear production may be due to the release of buds from suppression by older shoots.

Asparagus spears can be cut or snapped to produce spears of marketable length, which is usually between 7 and 9 inches, depending on tip tightness. Asparagus spears may be cut below the soil surface with a knife, or they may be hand-snapped above the soil surface. Cutting asparagus requires more labor, but increases yield 20 to 25 percent because spears are longer. However, cutting spears below the soil greatly increases the chance of the knife injuring a bud or emerging spear on the same crown.

When being hand-snapped, the spear usually breaks above the area containing fiber. In other words, the portion of the spear left in the field will be fibrous, while the harvested spear is tender and is completely edible. The small stub left above the soil after snapping dries up and disintegrates. A new spear does not come up at that spot, but comes up from another bud that enlarges on another part of the crown. Snapped asparagus has no trim-off waste and should command a higher price than cut asparagus with white butts. In this trial, we decided to snap spears instead of cutting because of the above reasons and because it is the preferred and accepted method by most growers.

Yield data were recorded in pounds per acre. This was obtained by dividing the total square feet of one plot row (60) into 43,560 (the number of square feet in one acre) to get 726 60-square-foot rows in one acre. Data that were recorded included total yield per cultivar, the yield (and percentage) of spears per cultivar that were greater than 3/8 inch in diameter, the yield of spears that were less than 3/8 inch in diameter, and the number of spears per plant that each cultivar produced. Recording yield data in terms of spear diameter (an industry standard) also allows growers to select a cultivar that would be suitable to them and their customers' preferences. Recording the number of spears produced per plant per cultivar lets growers compare spear output per cultivar over time. The harvesting frequency was based on how fast the spears grew, which is based on air temperatures, resulting in harvested spears that had tight tips before they started to fern out.

In 2007, harvest started on March 15, with just a few spears each of 'Grande', 'UC 157', and 'UC 115' (Table 2).

A frost occurred on March 19, which delayed future spear emergence until March 26. The other cultivars then started to emerge with the exception of 'Purple Passion', 'Dulce Verde', and 'Guelph Millennium', which did not emerge until April 2.

The last harvest was taken on April 5; on April 6, 7, and 8, we had severe frosts that stopped harvest again. A decision was made to end the 2007 harvest at this time, as the harvest period had lasted three weeks, with an actual harvest of two weeks for most cultivars, with one week being lost to frost. A total of 10 harvests were made. 'Guelph Millennium' was one of the latest cultivars to emerge before the second frost in 2007, and it did not get a chance to fully perform before the harvest was terminated, hence the low yields.

In 2008, harvest started on March 22 for most cultivars with the exception of 'Guelph Millennium' (Table 3). Cool temperatures (below 70 degrees) occurred until April 11, when yields accelerated, and 'Guelph Millennium' started to emerge. A frost in mid-April set yields back for one week. Then yields increased until we decided to end the harvest on April 26. The harvest period lasted five weeks, with an actual harvest of four weeks for most cultivars, with a one-week slump in yield due to frost. A total of 21 harvests were made.

The 2009 harvest went smoothly, with only one light frost on April 6 that brought temperatures down to 31 to 32 degrees, without a harvest delay after the frost. Harvest started on March 24, with 'Guelph Millennium' not showing the 20-day delay in emergence compared to other cultivars that it showed in 2008 (Table 4). Instead, two out of four 'Guelph Millennium' plantings had spears emerging on March 24, with the other two treatments starting four and ten days later, respectively.

The majority of days were cool, with temperatures rarely getting above 85 degrees. So there were no growth flushes that would cause a large number of spears to be produced in a short period of time. The harvest period lasted six weeks with a total of 36 harvests.

In 2010, harvest started on March 26, with one frost on March 28 that brought temperatures down to 30 degrees and delayed the next harvest for five days (Table 5). There were no other frosts during the season. Two 'Guelph Millennium' treatments had spears emerging on March 26, and the other two treatments had spears emerging seven days later.

There were a few days of cool temperatures but most were above 70 degrees with very little rainfall. This made the number of growth flushes minimal. The harvest period lasted eight weeks with a total of 41 harvests.

Cultivars exhibiting yield stability during the last four years were 'Jersey Giant' and 'Jersey Supreme' (Table 6). 'Jersey Giant' still yields well and has a wide geographic adaptability across the U.S.

Yields of some of the California hybrids have decreased while others have moved up and down. More time is needed to properly evaluate these cultivars. 'Purple Passion' yields have remained fairly stable. Yields are low but growers should be able to get higher prices because of its purple color and higher sugar content than green asparagus.

'Guelph Millennium' yields have steadily increased each year from twelfth place to first place in four years; however, spears greater than 3/8 inch in diameter are averaging about 50 percent, compared to the other cultivars which are between 70 to 90 percent. This should not be of great concern to growers if their customers will buy smaller diameter spears. It will be interesting to see if 'Guelph Millennium' will remain a high-yielding cultivar.

In a virgin soil (free of Fusarium), the expected productive life of an asparagus field (any cultivar) is 15 to 20 years. Growers feel that peak production occurs in the sixth or seventh year, with the best production occurring during years seven to 12. There is a decline of production of about 5 percent per year in the tenth year and every year thereafter. After the fifteenth year, the field may no longer be economically profitable. Established asparagus growers recover their investment after the fifth year and years five to 10 are their most profitable years.

Data collection in this trial will be on-going for at least another eight years to evaluate the longevity of these cultivars. During this time, total yields between cultivars can be compared by getting a more realistic picture of how they perform over a period of 12 years.

TABLE 1. BREEDING LOCATION, PARENTAGE AND COMMENTS FOR SELECTED ASPARAGUS CULTIVARS

Variety	Breeding location	Parentage	Comments
Jersey Giant	New Jersey	NJ 56 female, NJ 22-8 super male	—
Jersey Supreme	New Jersey	NJ 44P female, NJ 22-8 super male	—
Jersey Gem	New Jersey	NJ G27 female, NJ 22-8 super male	—
Jersey Knight	New Jersey	NJ 277C female,NJ 22-8 super male	—
UC 157	California	F 109 female, M120 male	Dioecious hybrid,
UC 115 (DePaoli)	California	F 600 female, M256 male clone	Dioecious hybrid, Similar to UC157 in spear size
Atlas	California	F 109 female, unspecified Rutgers male	Dioecious hybrid, Female plant producing seed
Apollo	California	F 109 female, unspecified Rutgers male	Dioecious hybrid, Female plant producing seed
Grande	California	F 109 female, unspecified Rutgers male	Dioecious hybrid, Female plant producing seed
Purple Passion	California	—	Open pollinated, burgundy, sweeter than green; burgundy color turns green after cooking
Dulce Verde	California	—	Higher sugar than other green cultivars; Discontinued due to stunted fern growth
Guelph Milennium	Univ. of Guelph	—	—

TABLE 2. ASPARAGUS YIELD IN POUNDS PER ACRE, 2007

Cultivar	Total yield[1]	Yield > 3/8- in. diameter		Yield < 3/8-in. diameter	Spears/ plant
UC 157 (F_1)	1,155 a	1,071 a	93%[2]	84 bcd	3.1 a
Jersey Giant	944 ab	752 b	80%	192 a	3.2 a
Jersey King	883 abc	712 b	81%	171 a	2.9 a
Jersey Supreme	860 abc	722 b	84%	138 abc	2.9 a
UC 115	821 abc	697 b	85%	124 abc	2.2 abc
Jersey Gem	734 bcd	581 b	79%	153 ab	2.6 ab
Atlas	717 bcd	684 b	95%	33 de	1.4 cde
Grande	703 bcd	684 b	97%	19 de	1.7 cde
Apollo	555 cd	481 b	87%	74 cde	1.5 cde
Jersery Knight	456 de	414 b	91%	42 de	1.2 def
Purple Passion	151 ef	104 c	69%	47 de	0.6 ef
Guelph Millennium	86 f	42 c	49%	44 de	0.4 f
Dulce Verde	71 f	69 c	97%	2 e	0.2 f

[1]Yields with the same letter within columns are not statistically significant, Duncan's Multiple Range Test, 0.05 level.
[2] Percentage of total yield

TABLE 3. ASPARAGUS YIELD IN POUNDS PER ACRE, 2008

Cultivar	Total yield[1]	Yield > 3/8- in. diameter	Yield < 3/8-in. diameter	Spears/ plant
Grande	3,030 a	2,821 a 93% [2]	209 e	7.6 bc
Jersey Giant	2,737 ab	2,263 ab 82%	474 bc	10.2 a
Atlas	2,523 abc	2,298 ab 91%	225 e	6.8 cd
Jersey Supreme	2,485 abc	2,064 ab 83%	421 bcd	8.7 abc
Jersey King	2,458 abc	1,915 b 78%	543 ab	9.3 ab
UC 157 (F_1)	2,385 abc	2,078 ab 87%	307cde	7.2 bcd
Guelph Mill.	2,332 abc	1,653 b 71%	679 a	8.7 abc
UC 115	2,314 abc	1,875 b 81%	439 bcd	7.8 bc
Jersery Gen	2,071 bc	1,579 b 76%	492 b	7.7 bc
Purple Passion	1,915 bc	1,723 b 90%	192 e	4.4 e
Apollo	1,781 c	1,501 b 84%	280 de	5.4 de
Jersey Knight	1,604 c	1,401 b 87%	203 e	5.3 de

[1]Yields with the same letter within columns are not statistically significant, Duncan's Multiple Range Test, 0.05 level.
[2] Percentage of total yield

TABLE 4. ASPARAGUS YIELD IN POUNDS PER ACRE, 2009

Cultivar	Total yield[1]	Yield > 3/8- in. diameter	Yield < 3/8-in. diameter	Spears/ plant
Grande	4,935 a	4,293 a 87% [2]	642 d	12.8 d
Guelph Mill.	4,868 ab	2,438 b 50%	2,430 a	19.5 a
Jersey Giant	4,494 abc	3,136 ab 70%	1,358 b	16.2 ab
Jersey Supreme	4,211 abc	2,948 b 70%	1,263 bc	14.9 abc
Atlas	3,987 abc	3,316 ab 83%	671 bcd	10.9 bcd
Jersey King	3,937 abc	2,815 b 72%	1,122 bc	13.9 bc
UC 157 (F_1)	3,848 abc	2,962 b 77%	886 bcd	11.7 bcd
Apollo	3,550 abc	2,879 b 81%	671 bcd	10.2 cd
Jersey Gem	3,442 abc	2,386 b 69%	1,056 bcd	12.8 bcd
Purple Passion	3,287 bc	2,888 b 88%	399 d	7.6 d
Jersey Knight	3,233 bc	2,476 b 77%	757 bcd	10.8 cd
UC 115	3,175 c	2,136 b 67%	1,039 bcd	10.9 cd

[1]Yields with the same letter within columns are not statistically significant, Duncan's Multiple Range Test, 0.05 level.
[2] Percentage of total yield

TABLE 5. ASPARAGUS YIELD IN POUNDS PER ACRE, 2010

Cultivar	Total yield[1]	Yield > 3/8- in. diameter	Yield < 3/8-in. diameter	Spears/ plant
Guelph Mill.	6,029 a	2,931 a 49% [2]	3,098 a	29.2 a
Jersey Giant	5,304 a	3,282 a 62%	2,022 b	23.2 ab
Grande	5,195 a	3,933 a 76%	1,262 bcd	19.3 bc
Jersey Supreme	4,759 a	2,993 a 63%	1,766 bc	20.7 bc
Atlas	4,716 a	3,799 a 81%	917 cd	15.4 bc
UC 157 (F_1)	4,397 a	3,068 a 70%	1,329 bcd	17.8 bc
Us 115	4,204 a	2,803 a 67%	1,401 bcd	16.2 bc
Apollo	4,204 a	3,071 a 73%	1,133 cd	15.8 bc
Jersey King	3,992 a	2,344 a 59%	1,648 bcd	17.5 bc
Purple Passion	3,884 a	3,100 a 80%	784 d	12.3 c
Jersey Knight	3,821 a	2,665 a 70%	1,156 bcd	15.2 bc
Jersey Gem	3,712 a	2,187 a 59%	1,525 bcd	16.3 bc

[1]Yields with the same letter within columns are not statistically significant, Duncan's Multiple Range Test, 0.05 level.
[2] Percentage of total yield

TABLE 6. ASPARAGUS CULTIVAR EVALUATION, FOUR-YEAR RANKING

Cultivar	2007	2008	2009	2010
UC 157 (F_1)	1	6	7	6
Jersey Giant	2	2	3	2
Jersey King	3	5	6	9
Jersey Supreme	4	4	4	4
UC 115	5	8	12	7
Jersey Gem	6	9	9	12
Atlas	7	3	5	5
Grande	8	1	1	3
Apollo	9	11	8	8
Jersey Knight	10	12	11	11
Purple Passion	11	10	10	10
Guelph Mill,	12	7	2	1

Seed Sources for Alabama Trials, 2010

BHN
1310 McGee Avenue
Berkeley, CA 94703
Phone: (510) 526-4704
E-mail: mail@berkeleyhort.com

Harris Moran
Contact: Bob Conrad
P.O. Box 4938
Modesto, CA 95352
Mobile: (239) 370-5893
(209) 527-8684
E-mail: b.contac@hmclause.com

Harris Seeds
To order: (800) 544-7938
P.O. Box 22966
Rochester, NY 14624-0966

Hollar
To order: (719) 254-7411
P.O. Box 106
Rocky Ford, CO 81067-0106
Phone: (719) 254-7411
Fax: (719) 254-3539
Website: www.hollarseeds.com

Johnny's Select Seeds
To order: (207) 437-4395
Contact: Steve Woodward
955 Benton Ave
Winslow, ME 04901
Phone: (207) 861-3900
E-mail: info@johnnyseeds.com

Kelly Seed Company
Distributor for Seminis Vegetable Seeds, Inc.
Contact: Jack Stuckey
420 South Shiloh Road
Hartford, AL 36344
Phone: (334) 588-3821
E-mail: jfsseedman@aol.com

Nunhems
Contact: Chris Hogg
Mobile: (478) 456-2450
E-mail: chris.hogg@bayer.com
Website: www.nunhemsusa.com

Sakata Seed America
Contact: Jerry Moore
755 Isabelle Nashville Rd.
Tifton, GA
Mobile: (229) 821-0399
E-mail: jmoore@sakata.com

Seedway
To order: (800) 952-7333
Contact: James J. Pullins
1225 Zeager Road
Elizabethtown, PA 17022
Ph: (717) 367-1075
Fax: (717) 367-0387
E-mail: info@seedway.com

Siegers Seed Company
13031 Reflections Drive
Holland, MI 49424
Phone: (800) 962-4999
Fax: (616) 994-0333

Syngenta Seeds, Inc
Rogers Brand Vegetable Seeds
Contact: Buton Brady
600 North Armstorng Place
P.O. Box 4188
Boise, ID 85711-4180
Phone: (208) 322-7272

Tifton Seed Distribution Center
Distributor for Seminis Vegetable Seeds, Inc.
Contact: Van Lindsey
Phone: (912) 382-1815

Guidelines for Contributions to the Commercial Fruit and Vegetable Variety Trials Regional Bulletin

Fruit and vegetable variety evaluation and selection is an essential part of production horticulture. The fruit and vegetable variety regional bulletin is intended to report results of variety trials conducted by research institutions in the Southeast in a timely manner. Its intended audience includes growers, research/extension personnel, and members of the seed industry.

Timeliness and rapid turnaround are essential to better serve our audience. Hence, two bulletins are printed each year: one in November with results from spring crops, and another one in April or May with results from summer and fall crops. It is essential that trial results are available before variety decisions for the next growing season are made.

Here are a few useful guidelines to speed up the publications process for the next regional bulletin (fall 2010).

When: April 25, 2011
Deadline for fall 2010 variety trial report submissions.

What: Results pertaining to variety evaluation in a broad sense. This includes field performance, quality evaluation, and disease resistance. Here are a few tips:

- Follow the format used in the other regional bulletins.
- Include each author's complete mailing address, e-mail address, and phone number.
- Follow your own unit's internal review process. Contributions will be edited, but not formally reviewed.

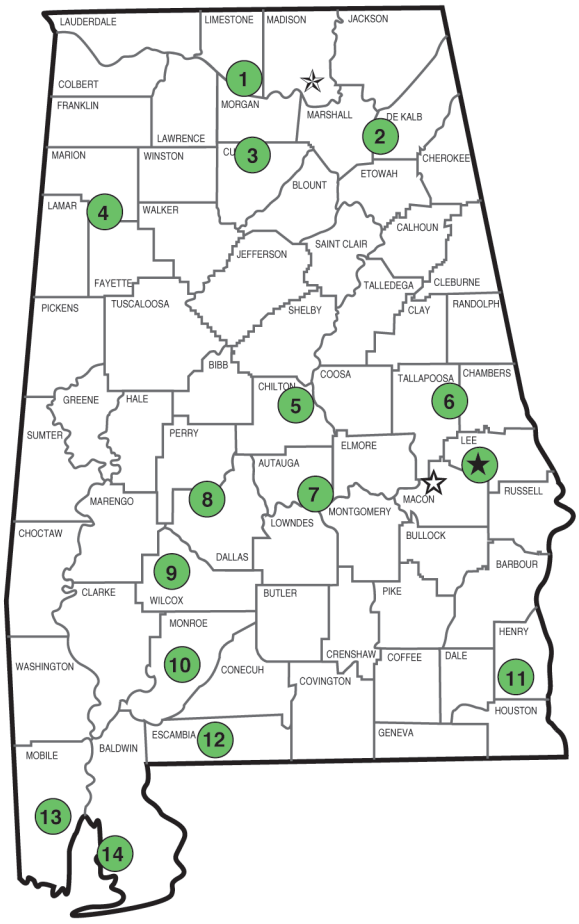
How: Send a disk and hard copy to

Edgar Vinson or Joe Kemble
Department of Horticulture
101 Funchess Hall
Auburn University, AL 36849-5408

Or send e-mail to
vinsoed@auburn.edu
kembljm@auburn.edu

Alabama's Agricultural Experiment Station
AUBURN UNIVERSITY

With an agricultural research unit in every major soil area, Auburn University serves the needs of field crop, livestock, forestry, and horticultural producers in each region in Alabama. Every citizen of the state has a stake in this research program, since any advantage from new and more economical ways of producing and handling farm products directly benefits the consuming public.



Research Unit Identification

★ Main Agricultural Experiment Station, Auburn.
★ Alabama A&M University.
☆ E. V. Smith Research Center, Shorter.

1. Tennessee Valley Research and Extension Center, Belle Mina.
2. Sand Mountain Research and Extension Center, Crossville.
3. North Alabama Horticulture Research Center, Cullman.
4. Upper Coastal Plain Agricultural Research Center, Winfield.
5. Chilton Research and Extension Center, Clanton.
6. Piedmont Substation, Camp Hill.
7. Prattville Agricultural Research Unit, Prattville.
8. Black Belt Research and Extension Center, Marion Junction.
9. Lower Coastal Plain Substation, Camden.
10. Monroeville Agricultural Research Unit, Monroeville.
11. Wiregrass Research and Extension Center, Headland.
12. Brewton Agricultural Research Unit, Brewton.
13. Ornamental Horticulture Research Center, Spring Hill.
14. Gulf Coast Research and Extension Center, Fairhope.