Bulletin 636 August 1998 Alabama Agricultural Experiment Station James E. Marion, Director Auburn University Auburn, Alabama

> PERFORMANCE OF PEACH AND NECTARINE CULTIVARS IN THE GULF COAST AREA OF ALABAMA

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First Printing 3M, August 1998

Information contained herein is available to all persons without regard to race, color, sex, or national origin.

Performance of Peach and Nectarine Cultivars in the Gulf Coast Area of Alabama

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INTRODUCTION

Peaches and nectarines are potentially valuable crops for the Gulf Coast area of Alabama. However, due to a low number of winter chilling units, many of the higher chilling cultivars grown in the central and northern areas of the state will not perform satisfactorily in this area.

Selecting cultivars is one of the most crucial decisions a grower must make when establishing a peach or nectarine orchard. Planting cultivars not adapted to an area because of chilling requirements, lack of disease resistance, and otherwise poor tree and fruiting characteristics can be financially disastrous. The selected peach and nectarine cultivars must produce fruit consistently, and the fruit must develop adequate size and quality for market. The fruit must be firm and have attractive skin and flesh color, proper shape, acceptable flavor, and a low percentage of split pits. The cultivars must also have chilling requirements met consistently. Currently, only a limited number of cultivars have chilling requirements low enough for the Gulf Coast region and, therefore, are dependable producers.

DESCRIPTION OF PROJECT

Test plantings of peach and nectarine cultivars were established in 1979 and 1985 at the Gulf Coast Substation at Fairhope, Alabama. The soil was a Varina fine sandy loam soil with 2 to 5% slope. Before planting, the soil was tested on each orchard site to a depth of six inches. Lime and fertilizer were incorporated to a 12-inch

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depth with a moldboard plow, following initial site preparation by subsoiling and disc harrowing. A second soil test was performed and additional recommended lime and fertilizers were broadcast and disc harrowed. Nematicides were applied at recommended rates before planting of each test. Nemagon (dibromochloropropane, Shell Chemical Co.) was used in 1979, and Nemacur (ethyl-3-methyl-4-(methylthio) phenyl (1-methyl ethyl) phosphoramidate, Bayer Corp.) was used in 1985.

The trees were planted on a 20-foot x 20-foot spacing. Blocks of four trees of each cultivar were included in each planting. Recommended practices for fertility, insect and disease control, and orchard floor management were followed each year. The trees were not irrigated. Fruit were hand thinned to commercial standard spacing each season on cultivars with excess fruit load.

Chill hour accumulation was calculated each year at the Gulf Coast Substation, Fairhope, Alabama, and was based on number of hours between and including 32° to 45°F. Accumulation of chill hours started with the first 50 hours accumulated over 10 consecutive days. Total accumulation of chill hours was determined starting with the original 50 hours and ended on February 15 (Table 1). Weather data were not collected at the substation in 1981, and chill hours for that year represent an estimate from multiple observations. Chill hours for 1982 and 1983 were calculated from weather data collected at the substation. Chill hours were not calculated for 1984 to 1986 since there were no trees bearing fruit. Calculated chill hours for 1987 to 1995 were obtained from the National Weather Service, S.E. Agricultural Weather Service Center, Auburn, Alabama. These chill hours were based on a model using maximum and minimum temperatures at the site and not on actual recorded hourly temperatures. Based on S.E.

TABLE 1. CHILL HOURS AT THE GULF COAST SUBSTATION, FAIRHOPE, AL ¹										
Winter season	Chill hours	Last spring freeze								
1980-81	700	Feb. 13								
1981-83	461	Mar. 9								
1982-84	510	Feb. 9								
1986-87	609	Feb. 11								
1987-88	848	Mar. 15								
1988-89	493	Feb. 26								
1989-90	753	Jan. 14								
1990-91	489	Feb. 17								
1991-92	789	Feb. 10								
1992-93	473	Mar. 15								
1993-94	912	Feb. 15								
1994-95	645	Feb. 13								
Averages										
1980-84 ²	557	Feb. 21								
1987-95 ³	668	Feb. 18								
Overall	640	Feb. 19								

¹Accumulation of chill hours started with the first 50 hours accumulated over 10 consecutive days. Total accumulation of chill hours was determined starting with the original 50 hours and ended on February 15. ²Average for the 1979 test planting.

³Average for the 1985 test planting.

Agricultural Weather Service Center data, the average chill hour accumulation for the nine-year period (1987 to 1995) was 668 hours, ranging from 461 to 912 hours. The average date of the last freeze was February 18 and ranged from January 14 to March 15 (Table 1).

Collection of yield and fruit data began the third growing season for each test. Dates of full bloom and first harvest were recorded and fruit quality characteristics determined for each cultivar. Fruit skin color, fruit attractiveness, fruit firmness, and stone freeness were rated from 1 = poor to 10 = excellent. Pubescence was rated from 1 = excellent to 10 = poor. Flesh color was rated with y = yellow, w = white, and r = red. Dessert quality was rated with 1,2 = acid; 3,4 = sub-acid; and 5,6 = astringent. Fruit shape was rated with 2 = round, 3 = round to oval, and 4 = oval. Fruit weight and the percent fruit with split pits were obtained from 10 fruit randomly selected from the four-tree plot on each harvest date. Peaches were considered to have a split pit if a knife cut all the way through the pit from the suture line. Significant occurrence of malformed sutures and extended tips of fruit, typical defects related to insufficient chilling, were noted each year for each cultivar. All fruit were removed and weighed to determine total yield per tree.

All cultivars in the 1979 planting were evaluated for three years (1981 to 1983), and results are presented in tables 2 to 7. All cultivars in the 1985 planting were evaluated for nine years (1987 to 1995), and results are presented in tables 8 to 13. Tables 8 and 9 show the years of crop loss due to spring frost/freeze and the years of insufficient chilling hours, based on tree growth and flowering in early spring.

BEST-PERFORMING PEACH VARIETIES

The following peach varieties performed best from a commercial production standpoint in the Gulf Coast Horticulture Substation tests. Only the best performing varieties in the 1985 test are discussed since the duration of the 1979 test was not sufficient to adequately select varieties based on performance. Performance was based on yield, fruit appearance, and fruit quality, and so that there was an overlap in harvest dates across the entire marketing season. For each cultivar, the pedigree is given in brackets followed by general comments. The cultivars are listed in order of average first harvest date.

Flordaking [Fla.9-67 (= Fla.16-61 x Junegold) x Early Amber with Fla.16-61 = an open pollinated Fla.8B-27 (= Okinawa x Panamint)] was introduced in 1978 by the University of Florida, Gainesville, Florida, and is currently an important commercial variety in low chill areas in southern Georgia, northern Florida, and southern Alabama. Flordaking has non-showy flowers that open early. The fruit ripen about 51 to 56 days before Elberta, are large and round to oval with prominent sutures and tips when chilling is marginal, and have a light pubescence. The fruit skin has a yellow ground color with about a 60% red blush at full maturity. The fruit flesh is yellow clingstone with low firmness and sub-acid quality. The pits are very susceptible to splitting. The trees are moderately resistant to bacterial spot, and produce moderate to high yields. The chilling requirement is about 400 hours.

Suzi Q [pedigree unknown but was found as an off-type tree in a Junegold block] was introduced in 1982 by Tracy Childers in Monetta, South Carolina. Suzi Q is an important commercial variety that is very similar to Springcrest. It has showy flowers.

TABLE 2	TABLE 2. BLOOM DATE, HARVEST DATE, AND YIELD OF PEACHCULTIVARS (1979 PLANTING)										
				Yiel	d (lbs./tree)						
Peach cv.	Bloom date (1983)	Harvest date (1981-1983)	1981	1982	1983	Mean					
Springtime	3/17	5/07-5/14	37	65	65	56					
YP71303-20	3/11	5/07-5/20	38	72	80	63					
YP71303-9	3/08	5/07-5/20	43	64	72	60					
Camden	3/23	5/07-5/25	31	35	70	45					
Armgold		5/10-5/14	25	45	0	23					
Springcrest	3/23	5/10-5/25	26	63	93	60					
Flordagold		5/10-6/01	48	89	0	45					
Bicentennial	3/27	5/17-6/02	63	124	114	100					
Junegold	3/20	5/20-6/06	30	29	123	61					
Juneprince		5/27-6/16	82	53	177	104					
Rio Grande	3/06	5/31-6/20	90	93	193	125					
Brighton	3/18	5/31-6/27	48	83	65	65					
Harvester	3/27	5/31-6/30	71	28	38	46					
Sweethaven	4/04	6/01-6/16	15	0	33	16					
Sentinel		6/04-6/04	80	35	66	60					
Bonanza II	3/30	6/04-6/16	16	10	8	11					
Vivid	4/01	6/04-6/29	78	47	57	60					
Harken	4/02	6/04-6/30	47	55	61	54					
Suwanee	3/15	6/07-7/07	27	13	8	16					
Topaz	3/26	6/08-6/30	38	0	23	21					
Carv Mac	3/25	6/11-6/27	70	5	89	54					
Harbrite		6/11-6/30	49	0	36	28					
Saturn	3/10	6/13-6/30	48	104	122	91					
Southland	3/2.5	6/13-7/05	67	32	194	98					
Wild Rose	4/01	6/15-7/05	25	15	114	51					
Cullinan	4/02	6/15-7/05	27	0	2	10					
Red Baron	3/25	6/21-7/11	50	101	90	80					
Javhaven		6/22-6/22	18	0	~ 0	6					
Winblo	4/01	6/22-7/07	75	2	130	69					
Canadian Harmon	v 4/01	6/25-7/07	34	13	64	37					
Summergold	3/27	6/28-7/11	87	48	129	88					
Loring	3/26	6/29-7/07	61	5	135	67					
Redkist	4/02	7/06-7/18	44	0	7	17					
Allred Elberta	3/28	7/09-7/21	76	Ő	71	49					
Havis	3/25	7/12-7/21	63	15	102	60					
Redskin	3/29	7/12-7/25	109	30	134	91					
Blake	4/06	7/13_7/28	48	0	11	20					
Marqueen	3/27	7/19-805	70 70	7	134	73					
Fax Flberta	3/25	7/20-7/20	70	, 0	1.54	23					
Golden Bluch	3/28	7/23-7/23	23	0	ñ	8					
Sweet Suc	J/20 A/01	7/31 8/00	23 68	0	65	44					
White Hale	3/27	8/03-8/25	50	0	32	27					

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TABLE 3.	Bloom Dati	e, Harvest D	ATE, AND	YIELD O	f Nectaf	INE	
	Cu	LTIVARS (1979	PLANTIN	4G)			
			Yield (lbs./tree)				
Nectarine cv.	Bloom date (1983)	Harvest date (1981-1983)	1981	1982	1983	Mean	
Armking	3/20	5/13-6/02	35	81	114	76	
Sunlite		5/29-6/08	95	128		111	
Snow Queen	3/27	5/29-6/13	42	113	110	89	
81-N	4/06	6/01-6/16	22	0	32	18	
Red King	4/02	6/01-7/18	30	31	109	57	
Pocahontas	4/01	6/04-6/16	23	0	34	19	
Stark Earliblaze	4/04	6/04-6/30	20	0	34	18	
Stark SunGlo	4/01	6/25-7/14	4	0	28	11	
Flavortop	3/28	6/28-7/07	76	33	120	77	
Red Chief	4/01	7/06-7/14	44	0	89	44	
Stark Redgold	4/01	7/06-7/28	39	12	96	49	
Fantasia	4/01	7/08-7/14	19	8	87	38	
Columbia	4/07	7/09-7/18	61	0	51	38	

TABLE 4. FRUIT QUALITY OF PEACH CULTIVARS ¹ (1979 PLANTING, YEARS 1981-1983)										
Peach cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmness	Stone freeness	Flesh color	Dessert quality	% split pits
Allred Elberta	2.40	3	6.0	8.0	5.0	8.0	9.5	У	3	0
Armgold	1.89	3	4.5	6.5	4.5	5.5	1.0	y	4	5
Bicentennial	2.11	3	5.7	6.3	7.7	7.7	2.7	y	3	0
Blake	2.50	3	4.5	5.5	6.0	8.5	9.5	y	3	10
Bonanza II	2.35	3	4.3	6.0	6.7	6.7	2.3	y	4	3
Brighton	2.26	3	4.7	6.3	6.7	7.3	4.0	y	4	5
Camden	2.19	3	3.3	9.0	6.7	6.0	1.0	v	4	30
Canadian Harmony	2.73	3	4.0	7.5	7.5	5.5	2.0	y	4	28
Cary Mac	2.50	3	5.0	6.7	7.3	7.0	3.7	v	3	17
Cullinan	2.74	3	4.5	7.0	6.5	6.0	5.5	v	5	20
Fay Elberta	2.40	2	5.0	8.0	9.0	9.0	10.0	y	3	0
Flordagold	2.50	2	4.0	8.5	9.0	7.5	2.0	y V	5	20
Golden Blush	2.80	3	4.0	2.0	8.0	10.0	10.0	i y	3	0
Harbrite	2.75	3	5.0	4.0	5.0	7.0	1.5	y	4	22
Harken	2.44	3	4.3	6.7	7.3	8.3	1.3	v	3	7
Harvester	2.27	2	6.0	6.0	7.0	5.3	4.0	v	3	0
Havis	2.77	3	4.3	5.7	5.0	8.7	9.7	v	4	0
Jayhaven	2.56	3	4.0	5.0	6.0	9.0	8.0	v	3	0
Junegold	2.40	3	6.0	7.3	7.0	7.7	1.7	v	3	20
Juneprince	2.20	3	5.0	6.7	7.7	7.3	1.5	v	3	10
Loring	2.77	3	4.7	7.0	9.0	8.7	7.7	v	3	13
Marqueen	2.51	3	5.0	5.3	5.0	9.0	9.7	v	3	3
Red Baron	2.40	3	5.0	3.3	5.0	5.0	7.0	y	3	0
¹ Mean of four trees.										

ALABAMA AGRICULTURAL EXPERIMENT STATION

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TABLE 4, CONTINUED. FRUIT QUALITY OF PEACH CULTIVARS ¹ (1979 PLANTING, YEARS 1981-1983)										
Peach cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmn ess	Stone freeness	Flesh color	Dessert quality	% split pits
Redkist	2.69	3	4.5	6.0	5.0	7.0	9.5	У	3	0
Redskin	2.40	3	5.7	4.7	3.3	7.3	10.0	У	3	0
Rio Grande	2.50	3	4.0	3.7	5.7	5.7	1.0	У	4	10
Saturn	2.41	3	5.3	2.0	5.3	6.0	1.3	У	5	3
Sentinel	2.47	2	5.0	7.0	7.3	7.0	1.0	У	3	20
Southland	2.45	3	5.3	5.0	5.0	7.3	6.3	У	4	22
Springcrest	1.93	3	5.0	7.7	5.3	5.3	1.0	У	4	20
Springtime	1.93	3	3.3	7.0	5.0	6.0	1.0	w	4	17
Summergold	2.60	3	5.0	7.0	8.7	9.0	9.0	У	3	3
Suwanee	2.67	3	4.7	6.7	6.3	8.3	5.7	У	4	7
Sweet Sue	2.50	3	5.0	7.0	8.0	6.0	6.0	У	4	0
Sweethaven	2.38	3	5.5	5.5	7.5	5.5	2.0	У	4	10
Topaz	2.67	3	6.5	7.0	8.0	6.0	1.0	У	3	10
Vivid	2.45	3	5.3	5.7	5.3	7.0	2.7	у	4	10
White Hale	2.50	3	6.5	5.0	6.0	9.0	9.5	w	3	3
Wild Rose	2.50	3	5.0	6.0	8.0	8.0	6.0	w	5	3
Winblo	2.60	3	5.0	6.0	7.5	8.0	5.5	У	3	0
YP 71303-20	2.07	3	4.0	8.0	6.3	5.0	1.0	У	4	27
YP 71303-9	1.95	3	4.0	7.7	5.7	5.0	1.0	У	4	10
¹ Mean of four trees.										

Nectarine cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmness	Stone freeness	Flesh color	Dessert quality	% split pits
Armking	2.26	3	1.0	8.3	9.7	7.0	1.0	у	3	40
Columbia	2.24	3	1.0	8.0	6.0	5.0	9.0	У	4	0
Fantasia	2.41	3	1.0	7.7	6.7	8.3	9.0	У	3	37
Flavortop	2.24	3	1.0	9.0	8.0	8.5	6.0	У	3	13
Pocahontas	1.93	2	1.0	7.5	7.0	2.0	1.0	У	4	0
Red Chief	1.96	3	1.0	7.0	5.0	5.5	9.5	У	3	0
Red King	2.54	3	1.0	7.3	9.0	9.3	9.7	У	3	33
Snow Queen	2.35	3	1.0	8.0	8.0	8.0	3.7	w	3	15
Stark Earliblaze	2.40	3	1.0	9.0	7.0	7.0	1.0	У	3	0
Stark Redgold	2.55	3	1.0	8.3	7.7	8.0	9.3	у	3	17
Stark SunGlo	2.64	3	1.0	7.5	7.5	8.5	9.0	у	3	10
Sunlite	1.93	3	1.0	8.5	8.0	8.0	9.0	y	3	0

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TABLE 6. F	TABLE 6. FREQUENCY OF SIGNIFICANT FRUIT MALFORMATIONS IN PEACH CULTIVARS (1979 PLANTING, YEARS 1981-1983)											
Peach cv.	Slight extended tip	Long extended tip	En- larged suture	Peach cv.	Slight extended tip	Long extended tip	En- larged suture					
Allred Elberta	ι 1	1	2	Marqueen	2	1	3					
Armgold	1	1	0	Red Baron	0	0	2					
Bicentennial	1	0	0	Redkist	0	0	0					
Blake	1	0	2	Redskin	3	0	3					
Bonanza II	0	1	1	Rio Grande	1	0	2					
Brighton	2	1	0	Saturn	0	0	1					
Camden	1	1	0	Sentinel	1	1	0					
Canadian				Southland	1	1	2					
Harmony	0	0	2	Springcrest	0	1	1					
Cary Mac	0	1	2	Springtime	3	0	0					
Cullinan	1	1	1	Summergold	1	0	0					
Fay Elberta	0	0	1	Suwanee	1	1	3					
Flordagold	0	0	0	Sweet Sue	2	0	2					
Golden Blush	0	0	0	Sweethaven	2	0	1					
Harbrite	0	0	1	Topaz	0	0	2					
Harken	2	1	1	Vivid	2	1	2					
Harvester	0	1	2	White Hale	2	0	2					
Havis	2	1	3	Wild Rose	0	0	1					
Jayhaven	0	0	1	Winblo	2	0	1					
Junegold	1	1	1	YP 71303-20) 2	1	0					
Juneprince	1	0	1	YP 71303-9	3	0	0					
Loring	0	0	2									

TABLE 7. FREQUENCY OF SIGNIFICANT FRUIT MALFORMATIONS INNECTARINE CULTIVARS (1979 PLANTING, YEARS 1981-1983)

Nectarine cv.	Slight extended tip	Long extended tip	En- larged suture	Nectarine cv.	Slight extended tip	Long extended tip	En- larged suture
Armking	0	2	0	Red King	0	0	0
Columbia	0	0	0	Snow Queen	0	0	0
Fantasia	2	0	0	Stark			
Flavortop	`1	. 0	1	Earliblaze	0	0	1
Pocahontas	0	0	0	Stark Redgold	d 1	0	1
Red Chief	0	0	0	Stark SunGlo	0	1	1
				Sunlite	0	0	0

TABLE 8. CHILLING HOUR REQUIRMENTS, YEARS WITH MAJOR CROPLOSS, YEARS WITH INSUFFICIENT CHILLING, AND FREQUENCYOF FRUIT MALFORMATIONS IN PEACH CULTIVARS(1985 PLANTING, YEARS 1987-1995)

Peach cv.	Chilling hour requirement ¹	Crop loss years ²	Insufficient chilling years ³	Slight ex- tended tip	Long ex- tended tip	Enlarged suture
Bicentennial	750			2	2	0
Brighton	750			5	1	2
BY4-7127	NA		_	1	0	2
BY77-1573	NA		89,90,91,95	0	0	1
BY78-1452	NA		89,90,91,93,9	5 0	0	0
BY78-289	NA		89	7	3	4
BY78-J39	NA	The second se	89,90,91,95	1	0	2
Cherry Gold	550	90		0	0	1
EarliGrande	275	87,88,89,91,93		0	0	0
Earligal	NA	87,90		0	0	0
Empress	650	90		4	1	1
Flavorcrest	750			3	1	4
Flordagold	325	88,89,93		0	0	4
Flordaking	400	87,88		3	0	3
Goldcrest	650	90,93		1	0	0
Idlewild	550	90		0	0	1
Junegold	650			6	1	4
La Feliciana	600			1	0	4
La Festival	400-500			0	0	1
La Pecher	450	90		0	0	2
LaPremiere	1050		87,88,89,91,9	3 0	0	0
LaWhite	650		89	3	1	3
Loring	800		89,90,91	0	0	1
Magnolia	650	90		5	3	1
Maygold	650	90		5	2	4
Redskin	750		89,90,91	0	0	5
Rio Grande	450	93		2	0	6
Sam Houston	500			5	2	6
Shepard's						
Beauty	650	90		4	3	1
Springold	850	90		4	1	3
Starlite	650			6	4	1

¹From: Okie, W.R. 1998. "Handbook of peach and nectarine varieties," USDA. Agr. Handbook 714. ²Due to spring frost/freezes.

³Based on early spring growth.

TABLE 8, CONTINUED. CHILLING HOUR REQUIRMENTS, YEARS WITHMAJOR CROP LOSS, YEARS WITH INSUFFICIENT CHILLING, ANDFREQUENCY OF FRUIT MALFORMATIONS IN PEACH CULTIVARS(1985 PLANTING, YEARS 1987-1995)

Peach cv.	Chilling hour requirement ¹	Crop loss years ²	Insufficient chilling years ³	Slight ex- tended tip	Long ex- tended tip	Enlarged suture
Sunbrite	750	_	_	8	2	2
Sunland	750		_	3	3	4
Sunprince	800		90,91	0	0	2
Suzi Q	650			5	2	0
Texstar	450		_	7	1	6
Trisha Q	NA	90		1	2	1
White Hale	750		89,90,91,95	1	0	2
Wild Rose	850	Accessed 1	89,90	0	0	0
Winblo	850		89,90,91	3	0	2

¹From: Okie, W.R. 1998. "Handbook of peach and nectarine varieties," USDA. Agr. Handbook 714 ²Due to spring frost/freezes.

³Based on early spring growth.

TABLE 9. CHILLING HOUR REQUIRMENTS, YEARS WITH MAJOR CROPLOSS, YEARS WITH INSUFFICIENT CHILLING, AND FREQUENCY OF FRUITMALFORMATIONS IN NECTARINE CULTIVARS(1985 PLANTING, YEARS 1987-1995)

Nectarine cv.	Chilling hour requirement ¹	Crop loss years ²	Insufficient chilling years ³	Slight ex- tended tip	Long ex- tended tip	Enlarged suture
Armking	600	90		1	2	3
Carolina Red	750-850		89	0	0	0
Crimson Gold	1 750	-	89	0	0	0
Durbin	850		89,90,91,93	0	0	0
Early Bird	650		89,95	0	0	0
Karla Rose	650-750	90		3	0	1
Mayfire	600-650	93	·	0	0	0
Redgold	850		89,90,91	1	0	1
Roseprincess	850		89,90	NA	NA	NA
Summer Beau	ıt 800		89,91	0	0	0
Sunfre	500	90		0	0	0
SunGlo	850		89,90,95	1	0	1
Sunlite	450			1	1	1

¹From: Okie, W.R. 1998. "Handbook of peach and nectarine varieties," USDA. Agr. Handbook 714 ²Due to spring frost/freezes.

³Based on early spring growth.

T	ABLE 10. BI	loom Date, I	Harvest	T DATE, 2	and Yie	ld of P	EACH C	ULTIVARS	(1985]	Plantin	G)		
Peach cv.			Yield (lbs./tree)										
	Bloom date ¹	Harvest date ²	1987	1988	1989	1990	1991	1992 ³	1993	1994	1995	Mean	
Flordaking	2/01-2/27	4/26-5/13	0	0	10	103	133	469	1	290	132	126	
EarliGrande	1/16-2/06	4/30-5/04	0	0	0	108	0	429	0	198	63	89	
Goldcrest	2/23-3/23	5/07-5/13	16	25	7	0	0	65	0	54	0	19	
Suzi Q	2/19-3/23	5/08-6/01	17	27	54	5	89	213	143	154	118	91	
Trisha Q	2/23-3/23	5/08-6/01	24	44	52	0	83	245	85	141	82	84	
Sunbright	3/01-3/31	5/08-6/01	13	24	16	18	91	209	47	111	83	68	
Starlite	2/19-3/23	5/08-6/06	19	57	93	66	91	282	174	190	157	125	
Flordagold	1/12-2/28	5/08-6/08	8	0	0	61	47	310	0	145	169	82	
Texstar	2/12-3/09	5/08-6/10	52	113	183	91	180	466	5	211	191	166	
Early Gal	2/2-3/21	5/10-5/19	0	17	10	0	13	148	1	76	24	32	
Springold	2/23-3/31	5/18-6/05	0	1	17	0	14	131	9	79	. 13	29	
Empress	2/23-3/23	5/12-6/01	28	23	32	0	51	164	74	79	42	55	
Junegold	2/23-3/23	5/21-6/10	27	90	84	32	145	298	144	184	153	128	
Bicentennial	3/01-4/11	5/21-6/10	32	8	55	12	11	342	75	185	148	96	
Cherry Gold	2/09-3/15	5/21-6/10	3	31	19	0	35	392	4	126	182	88	
Shepard's Beauty	2/23-3/31	5/27-6/04	15	13	0	0	17	188	65	104	35	48	
Magnolia	2/23-3/31	5/28-6/04	33	5	8	0	64	250	42	144	81	70	
BY78-289	3/11-4/01	5/31-6/14	32	60	0	27	7	408	17	257	50	95	
Rio Grande	2/09-3/04	5/31-6/23	14	26	85	28	116	325	0	241	103	105	
Maygold	3/07-4/11	6/01-6/10	14	19	0	0	28	260	63	128	78	65	
Idlewild	2/14-3/23	6/01-6/22	8	85	23	0	113	350	79	161	36	95	

¹ Range of blooming dates from 1987 to 1995.
 ² Range of harvest dates from 1987 to 1995.
 ³ Peaches thinned lightly in 1992.

ALABAMA AGRICULTURAL EXPERIMENT STATION

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			Yield (lbs./tree)									
Peach cv.	Bloom date ¹	Harvest date ²	1987	1988	1989	1990	1991	1992 ³	1993	1994	1995	Mean
Brighton	3/01-3/31	6/06-6/22	45	45	4	3	57	306	76	154	55	83
LaPremiere	3/16-4/08	6/07-6/15	0	0	0	7	0	71	0	120	0	22
Flavorcrest	3/01-4/05	6/07-6/23	22	43	0	6	41	411	92	260	172	116
LaWhite	3/13-4/01	6/07-6/23	23	21	0	5	24	352	90	209	80	89
Sam Houston	2/23-3/23	6/07-6/29	45	101	42	4	55	264	140	125	79	95
La Feliciana	2/12-3/13	6/07-7/07	25	53	62	8	92	324	87	180	112	105
BY78-1452	3/16-3/28	6/10	0	0	0	0	0	48	0	0	0	5
La Pecher	2/12-3/23	6/10-6/23	16	148	30	0	92	378	55	178	126	114
Sunland	3/01-3/31	6/13-7/13	58	85	10	9	80	445	86	229	85	121
La Festival	2/12-3/09	6/17-7/07	24	99	63	2	61	323	53	150	45	91
Wild Rose	3/07-3/24	6/18-7/02	17	5	0	0	15	65	15	132	21	30
Winblo	3/16-3/31	6/26-7/06	51	9	0	0	0	94	1	204	20	42
Loring	3/09-3/28	6/30-7/07	42	0	0	0	0	81	17	86	10	26
BY78-J39	3/16-3/30	7/01-7/14	10	20	0	0	0	209	2	210	0	50
Sunprince	3/01-4/11	7/17-7/29	44	21	0	0	0	128	32	130	12	41
Redskin	3/09-4/01	7/22-7/29	23	4	0	0	0	154	41	162	7	43
White Hale	3/22-4/15	8/17	0	0	0	0	0	0	8	56	0	7
BY78-1573	3/16		0	0	0	0	0	0	0	69	0	8
Goldilocks	Died lack											
	of chill		0	0	0	0	0	0	0	0	0	0

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Nectarine cv.				Yield (lbs./tree)									
	Bloom date ¹	Harvest date ²	1987	1988	1989	1990	1991	1992 ³	1993	1994	1995	Mean	
Mayfire	2/14-3/23	4/26-5/24	32	24	16	1	30	101	0	102	20	36	
Armking	2/19-3/23	5/21-6/03	48	38	89	0	19	281	63	123	57	80	
Sunlite	2/07-3/10	5/28-6/20	10	38	134	65	28	379	7	248	97	112	
Carolina Red	3/09-4/11	5/31-6/18	2	45	0	14	206	259	40	130	51	83	
Sunfre	2/16-3/31	6/06-6/18	1	27	0	0	0	408	30	134	112	79	
Early Bird	3/20-4/01	6/07-6/23	0	5	0	4	12	22	12	41	0	11	
Karla Rose	3/07-3/21	6/08-6/29	27	55	16	0	66	301	63	229	98	95	
Crimson Gold	3/07-4/01	6/10-6/17	0	15	0	1	0	129	73	50	0	30	
Durbin	3/07-3/31	6/10-6/17	12	5	0	0	11	21	0	26	0	8	
Summer Beaut	3/02-4/05	6/13-6/19	0	4	0	14	35	50	12	40	0	17	
Roseprincess	3/18-3/28	6/21-7/02	23	70	0	0	36	182	129	148	46	71	
SunĜlo	3/11-4/01	7/01-7/14	17	4	0	0	35	13	7	50	0	14	
Redgold	3/16-3/30	7/13-7/14	0	56	0	0	1	114	29	70	2	30	

² Range of harvest dates from 1987 to 1995.
³ Nectarines thinned lightly in 1992.

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TABLE 12. FRUIT QUALITY OF PEACH CULTIVARS (1985 PLANTING, YEARS 1987-1995)												
Peach cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmness	Stone freeness	Flesh color	Dessert quality	% split pits		
Bicentennial	-2.23	3	4.3	6.8	8.8	7.5	1.4	У	3	1		
Brighton	2.47	3	3.5	7.1	9.0	8.0	9.6	У	3	10		
BY77-1573	2.85	2	4.0	7.0	10.0	8.0	10.0	У	3	0		
BY78-1452	2.44	2	3.5	9.0	10.0	8.5	1.0	У	3	10		
BY78-289	2.55	3	5.1	6.9	8.8	8.0	2.1	У	3	41		
BY78-J39	2.49	3	5.2	4.8	7.4	8.6	9.4	У	3	0		
Cherry Gold	2.63	2	3.0	5.1	7.1	6.9	1.3	r	3	74		
EarliGrande	2.37	2	2.3	4.3	9.0	8.5	1.0	У	3	53		
Early Gal	2.18	3	3.0	9.1	8.0	8.3	1.0	У	3	75		
Empress	2.23	3	4.0	9.3	9.4	7.5	2.9	У	3	18		
Flavorcrest	2.52	3	4.3	8.6	8.4	9.1	7.9	У	3	8		
Flordagold	2.51	2	2.8	8.7	9.7	9.8	1.0	У	2	18		
Flordaking	2.76	3	3.7	5.5	7.8	8.7	1.3	У	3	80		
Goldcrest	2.12	3	3.2	9.2	7.2	6.6	1.0	У	3	68		
Idlewild	2.57	2	4.1	6.0	8.7	8.7	5.6	У	3	9		
Junegold	2.58	3	4.1	6.9	7.9	8.1	1.0	У	3	62		
La Feliciana	2.65	2	5.1	5.4	9.2	8.3	9.8	У	3	0		
La Festival	2.75	2	3.6	6.9	9.0	8.9	9.8	У	3	1		
La Pecher				6.7	8.1	8.1	6.4	У	3	13		
LaPremiere	2.65	3	4.0	5.5	9.5	8.0	10.0	У	3	0		
LaWhite	2.82	2	5.9	7.4	8.9	8.4	4.4	w	4	20		
Loring	3.07	3	2.5	4.8	9.8	7.0	10.0	У	3	20		
Magnolia	2.37	3	5.1	8.1	8.0	6.9	3.5	у	3	11		

PERFORMANCE OF PEACH AND NECTARINE IN THE GULF COAST

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TABLE 12, CONTINUED. FRUIT QUALITY OF PEACH CULTIVARS (1985 PLANTING, YEARS 1987-1995)												
Peach cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmness	Stone freeness	Flesh color	Dessert quality	% split pits		
Maygold	2.54	3	4.6	7.7	8.3	9.1	2.6	у	3	39		
Redskin	2.71	3	3.0	3.8	6.5	7.8	10.0	У	3	5		
Rio Grande	2.70	2	5.4	6.7	7.3	8.9	7.4	У	3	23		
Sam Houston	2.62	3	3.2	8.1	8.0	9.0	9.4	У	4	1		
Shepard's Beauty	2.49	3	5.7	6.6	7.1	6.7	4.4	У	3	19		
Springold	2.06	3	5.1	8.9	8.1	6.9	1.0	У	3	13		
Starlite	2.58	3	4.9	6.2	6.2	8.9	1.4	У	3	70		
Sunbrite	2.37	3	3.2	8.9	9.4	8.7	1.9	У	3	23		
Sunland	2.66	3	4.9	7.1	8.9	8.7	8.2	У	3	8		
Sunprince	2.85	2	4.8	4.8	9.0	8.4	10.0	У	3	6		
Suzi Q	2.33	3	3.8	8.8	9.1	8.2	1.0	У	3	21		
Texstar	2.42	3	3.8	5.9	8.6	8.2	4.4	У	4	12		
Trisha Q	2.26	3	3.9	9.1	9.4	8.0	1.5	У	3	5		
White Hale	2.98	3	4.3	3.7	6.3	8.7	7.0	w	3	0		
Wild Rose	2.51	2	3.0	4.6	7.7	5.9	10.0	w	3	0		
Winblo	2.78	3	3.8	6.0	9.4	9.0	9.0	У	3	14		

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TABLE 13. FRUIT QUALITY OF NECTARINE CULTIVARS (1985 PLANTING, YEARS 1987-1995)													
Nectarine cv.	Fruit size (in.)	Fruit shape	Pubescence	Skin color	Eye appeal	Fruit firmness	Stone freeness	Flesh color	Dessert quality	% split pits			
Armking	2.48	3	1.0	8.1	7.0	8.1	1.0	у	3	69			
Carolina Red	2.13	2	1.0	9.3	9.1	9.0	2.6	У	2	15			
Crimson Gold	2.28	2	1.0	9.8	9.3	8.7	5.3	У	3	5			
Durbin	2.29	2	1.0	9.0	9.3	8.5	3.0	У	3	5			
Early Bird	2.23	2	1.0	10.0	9.5	8.8	5.5	y	3	4			
Karla Rose	2.44	3	1.0	8.4	8.9	9.0	7.6	w	3	31			
Mayfire	2.20	3	1.0	9.3	8.7	8.4	1.0	У	3	49			
Redgold	2.68	3	1.0	8.0	8.5	8.8	9.3	y	3	18			
Roseprincess	2.42	2	1.0	7.9	9.6	8.8	7.7	w	3	10			
Summer Beaut	2.40	3	1.0	8.8	8.8	9.8	8.3	у	3	35			
Sunfre	2.38	2	1.0	8.7	8.3	8.8	4.3	y	3	33			
SunGlo	2.85	2	1.0	6.3	8.0	9.3	10.0	y	3	3			
Sunlite	2.25	2	1.0	8.3	8.9	8.4	9.6	у	3	3			

The fruit ripen about 51 days before Elberta, are round to slightly oval and very attractive with a heavy red blush and light pubescence. The flesh is yellow clingstone with medium to high firmness and sub-acid quality. The trees produce medium yields and are susceptible to bacterial leaf spot. The chilling requirement is about 650 hours.

Sunbrite [FV7-873 (=FV131-48 x Coronet) x FV9-327 with FV9-327 = FV131-48 x Springtime and FV131-48 = Sunhigh x Southland] was selected at Fort Valley, Georgia, and introduced in 1976 by the USDA in Byron, Georgia. Sunbrite is a commercial variety that is one of the most popular early peaches in Georgia but not in Alabama because of bacterial spot. The flowers are non-showy, and the fruit ripen 49 days before Elberta. The fruit are round to oval with a prominent tip in most years and are very attractive with beautiful yellow ground color and about 75% red blush. The flesh is yellow clingstone with medium firmness and sub-acid quality. Ground color turns yellow while flesh is still firm. The trees produce light to moderate yields and are susceptible to bacterial leaf spot. The chilling requirement is about 750 hours.

Starlite [FV89-14 = (FV15-48 x Fireglow) x Springtime with FV15-48 = Fireglow x Hiley] was selected at Fort Valley, Georgia, and introduced in 1980 by the USDA in Byron, Georgia. Starlite is currently a commercial variety for local sales. The flowers are showy and the fruit ripen 55 days before Elberta. The fruit are round to slightly oval and attractive with moderate pubescence. The flesh is white clingstone with better than moderate firmness and good quality that is better than most early peach varieties. The pits are susceptible to splitting. The trees produce medium yields and are susceptible to bacterial leaf spot. The chilling requirement is 650 hours.

Texstar [pedigree unknown] was introduced in 1984 by Texas A & M University, College Station, Texas. Texstar has showy flowers and the fruit ripen about 45 days before Elberta. The fruit are large and round to oval with an occasional extended tip and enlarged suture in Alabama orchards. The fruit skin has yellow ground color with very little red blush and a light pubescence. The flesh is yellow clingstone with moderate firmness and good quality. The trees set a heavy crop that must be thinned to produce large fruit. The trees are moderately resistant to bacterial spot. The chilling requirement is about 450 to 500 hours.

Junegold [a cross of Flamingo x Springtime] was introduced in 1958 by Herbert C. Swim, Armstrong Nurseries, Ontario, California. Junegold is currently a commercial variety that has been sold as Red Glow, Red Gold, and Dixie Gold. Junegold is popular in Georgia, South Carolina, and Alabama because of its large size and good color if not picked too early, but its production is declining in the Southeast due to marketing problems related to shape and split pits. The flowers are showy. The fruit ripen 47 days before Elberta, are large and round to oval with a prominent tip and suture in most years, have a light to moderate pubescence, and have about 60 to 70% red blush at full maturity. The flesh is yellow clingstone with moderate to high firmness and sub-acid quality. The pit is susceptible to shatter, reducing marketability. The trees produce moderate to heavy yields and are moderately resistant to bacterial spot. The chilling requirement is 650 hours.

Bicentennial [LaGold x Redglobe] was introduced in 1977 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. The variety is commercially grown and has showy flowers. The fruit ripen 51 days before Elberta, are round to

oblong, with moderate pubescence and about 75% red color, but the ground color can be poor in some years. The flesh is a yellow clingstone that is firm but melts quickly on the tree and therefore must be picked with greener skin than most other varieties. The dessert quality is sub-acid, and the fruit produce very few split pits. The trees produce moderate yields and are moderately resistant to bacterial spot. The chilling requirement is about 750 hours. Junegold and Bicentennial fruit ripen about the same time. Junegold has much higher split pits than Bicentennial whereas Bicentennial has smaller fruit and less yield.

Magnolia [a mutation of the variety Coronet] was introduced in 1970 by William J. Wilson, Fort Valley, Georgia. Magnolia is no longer even a minor commercial variety and may not be available anymore. The flowers are non-showy. The fruit ripen 42 days before Elberta, are round to oval with a slight tip that is prominent in some years, and are attractive with a deep red blush and moderate pubescence. The flesh is yellow clingstone, moderately firm with excellent sub-acid quality. The trees produce a light to moderate crop and are susceptible to bacterial spot. The chilling requirement is about 650 hours.

Rio Grande [an open pollinated F2 of Blazing Gold x (Southland x Hawaiian)] was introduced in 1969 by the Peaches of Florida, Inc., Balm, Florida. Rio Grande is a commercial variety that has not been extensively tested. The flowers are showy. The fruit ripen about 25 days before Elberta, are large and round but have a big suture bulge in most years, and have 50 to 60 % red color over a dull yellow ground color and moderate pubescence. The flesh is yellow freestone, firm but melts quickly, and has sub-acid quality. The trees are highly susceptible to bacterial spot and produce moderate yields. The chilling requirement is 450 hours.

Idlewild [La Feliciana open pollinated] was introduced in 1983 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. The flowers are non-showy. The fruit ripen 33 days before Elberta, tend to have green ground color with little red blush, and are round shaped with an occasionally large suture. The flesh is yellow semi-freestone with occasional split pits, and has moderate to high firmness, and fair, sub-acid quality. The trees produce moderate yields and are resistant to bacterial spot. The chilling requirement is 550 hours.

Brighton [Sunhigh x Redhaven] was introduced in 1972 by the New York Agricultural Experiment Station, Geneva, New York. Brighton is currently a minor commercial variety. The flowers are non-showy and the fruit ripen 33 days before Elberta. The fruit are round to oval with a prominent tip, and are attractive with about 75% red blush and excellent ground color, which can be poor in some years. The flesh is yellow freestone with low to medium firmness that melts quickly and has fairly good, subacid quality. The trees produce moderate yields and are moderately resistant to bacterial spot. The chilling requirement is 750 hours.

Flavorcrest [P53-68 (= P110-47 x P109-89) x FV89-14 (= FV15-48 x Fireglow) where P110-47 = Kirkman Gem x Dripstone, P109-89 = Kirkman Gem x B27-3 (=J.H. Hale x Rio Oso Gem) and FV15-48 = Fireglow x Hiley] was introduced in 1974 by the USDA in Fresno, California. Flavorcrest is a major cultivar in California. The flowers are showy. The fruit ripen 33 days before Elberta, and are very attractive with high color, light to moderate pubescence, and round to oval shape. The flesh is yellow

freestone that is very firm and has good, sub-acid quality. The trees produce moderate yields but are very susceptible to bacterial spot. The chilling requirement is about 750 hours.

Sam Houston [July Elberta x F-13-23 (= Early Elberta x Floriberta)] was introduced in 1965 by Texas A & M University, College Station, Texas. The flowers are showy. The fruit ripen about 20 days before Elberta and are round to oval with large tips and sutures when chilling hours are below 700. The flesh is yellow freestone with very few split pits, low to medium firmness, and sub-acid flavor. The trees produce fair yields and are susceptible to bacterial spot. The chilling requirement is about 500 hours.

La Feliciana [L5-20-18 open pollinated = Dixigem open pollinated] was introduced in 1980 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. The flowers are non-showy. The variety is currently a minor commercial variety but is promising in moderate chill areas. The fruit ripen 14 days before Elberta, are large and round and have about a 75% red blush with moderate pubescence. The flesh is a yellow freestone that is moderately firm and has very few split pits. The trees produce moderate yields and are moderately resistant to bacterial spot. The chilling requirement is 600 hours.

La Pecher [La Feliciana open pollinated] was introduced in 1984 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. The flowers are non-showy. The fruit ripen 39 days before Elberta, and are very attractive with good color, moderate pubescence, and round shape. The flesh is yellow semi-freestone that is firm and has good, sub-acid quality. The trees produce high yields and are moderately resistant to bacterial spot. The chilling requirement is about 450 hours.

Sunland [FV323-12 (= FV177-28 open pollinated) x FV9-6345 (= Dixiland x Keystone) where FV177-28 = Newday x Southland] was introduced in 1980 by the USDA in Byron, Georgia. Sunland is currently a commercial variety that is similar to Harvester. The flowers are non-showy. The fruit ripen 23 days before Elberta , are round to oval, and are attractive with a nice 75% red blush. The flesh is a yellow clingstone that is firm and has good, sub-acid quality. The trees produce moderate to high yields and are moderately resistant to bacterial spot. The chilling requirement is 750 hours.

La Festival [La Feliciana open pollinated] was introduced in 1984 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. The flowers are non-showy. The fruit ripen about 20 days before Elberta, and are very attractive with good color, low to moderate publicate, and round shape. The flesh is yellow freestone that is firm and has good, sub-acid quality. The trees produce high yields and are moderately resistant to bacterial spot. The chilling requirement is about 400 to 500 hours.

BEST-PERFORMING NECTARINE VARIETIES

Armking [(Palomar x Springtime) x (Palomar x Springtime)] was introduced in 1969 by David L. Armstrong, Armstrong Nurseries, Ontario, California, and is a minor variety in Georgia and Alabama commercial production areas. The flowers are non-showy and the fruit ripen about 70 days later or 48 days before Elberta. The fruit are round to oval with the tip and suture prominent in some years. The suture tends to soften before the rest of the fruit, and the rest of the fruit softens quickly at maturity.

The flesh has fair quality and is a yellow clingstone that often splits. The skin is moderately attractive with a green ground color and often russets. Fruit size and tree yields are moderate to high for an early nectarine. The trees are susceptible to bacterial spot. The chilling requirement is 600 hours.

Sunlite [Fla. 8B-27 (= Okinawa x Panamint) x NJN21 where NJN21 = Cardinal x NJ53939 (= Candoka x Flaming Gold)] was introduced in 1975 by the University of Florida, Gainesville, Florida. Sunlite is a commercial variety. The flowers are showy. The fruit ripen 52 days before Elberta and are round with the tip or suture usually prominent. The fruit tend to be small so they must be thinned heavily, especially since fruit set is usually high. The skin has about 60% red blush over a bright yellow ground color at full maturity but occasionally russets. The flesh is yellow freestone that is firm and has high quality. The trees are highly resistant to bacterial spot. The trees tend to produce high yields because of high numbers of flower buds. The chilling requirement is 450 hours.

Carolina Red [Nectared 4 self] was introduced in 1982 by the North Carolina Agricultural Research Service, Raleigh, North Carolina. Carolina Red is a commercial variety that is better adapted to eastern conditions than most California nectarines. The fruit are round, attractive, and ripen 39 days before Elberta. The flesh is yellow clingstone, firm, and has fairly good quality high in acids. The trees produce moderate to high yields that require heavy thinning to attain size since they set a heavy cropload. The trees are moderately resistant to bacterial spot. The chilling requirement is between 750 to 850 hours.

Karla Rose [pedigree unknown] was introduced in 1975 by David L. Armstrong, Armstrong Nurseries, Ontario, California. Karla Rose is currently a minor variety in the Southeast because of susceptibility to russet and cracking. The flowers are nonshowy. The fruit ripen 42 days before Elberta, and are attractive, round to oval and often with a pronounced tip. The flesh is a white semi-clingstone that is somewhat susceptible to split pits. It is firm and has very good flavor. The trees produce moderate yields and are highly susceptible to bacterial spot. The chilling requirement is about 700 hours.

Roseprincess [BY76N138 open pollinated (F100-62 (= Red King open pollinated))] was introduced in 1989 by the USDA in Byron, Georgia. Roseprincess is a recent variety that was formerly tested as BY80-384. The flowers are showy and white and open later than most nectarine varieties tested. Fruit set is usually high. The fruit ripen 21 days before Elberta, are round to slightly elongate, and are very attractive with a rose blush over an ivory ground color. The flesh is white freestone, firm and has good quality that is somewhat tart. The trees are moderately resistant to bacterial spot and produce medium yields. The chilling requirement is 850 hours.

Alabama's Agricultural Experiment Station System 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

Adin Agricultural Experiment Station, Auburn.

- ☆ E. V. Smith Research Center, Shorter.
 - 1. Tennessee Valley Substation, Belle Mina.
 - 2. Sand Mountain Substation, Crossville.
 - 3. North Alabama Horticulture Substation, Cullman.
 - 4. Upper Coastal Plain Substation, Winfield.
 - 5. Forestry Unit, Fayette County.
 - 6. Chilton Area Horticulture Substation, Clanton,
 - 7. Forestry Unit, Coosa County.
 - 8. Piedmont Substation, Camp Hill.
 - 9. Foresty Unit, Autauga County.
- 10. Prattville Experiment Field, Prattville.

- 11. Black Belt Substation, Marion Junction.
- 12. The Turnipseed-Ikenberry Place, Union Springs.
- 13. Lower Coastal Plain Substation, Camden.
- 14. Forestry Unit, Barbour County.
- 15. Monroeville Experiment Field, Monroeville.
- Wiregrass Substation, Headland.
 Brewton Experiment Field, Brewton.
- 18. Ornamental Horticulture Substation, Spring Hill.
- 19. Gulf Coast Substation, Fairhope.