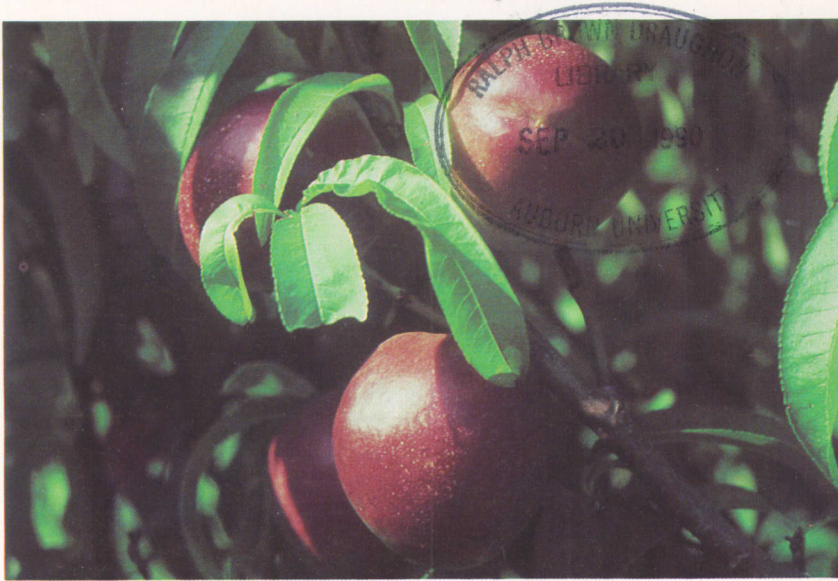


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**Peach and Nectarine Varietal Performance**



**in the Wiregrass Area of Alabama**



Alabama Agricultural Experiment Station  
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*Information contained herein is available to all,  
regardless of race, color, sex, or national origin.*

# Peach and Nectarine Varietal Performance in the Wiregrass Area of Alabama

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**P**EACH and nectarine varieties have performed well in test plantings at the Wiregrass Substation. Even though these are not major crops in this area of Alabama at present, they can produce high income per acre, and offer opportunity for diversification of farm operations. This region has the natural advantage of being free of spring frost in most years, while most peach producing areas are subject to frost damage during or just after bloom. Many new varieties have been identified in the evaluation plantings as having potential for commercial and home production in this area of Alabama.

Varietal selection is one of the major problems associated with peach and nectarine production in the Wiregrass. However, fruit of good quality can now be harvested from mid-May until late July by proper varietal selection. In addition, several new breeding lines that have performed well in test plantings will add to the list of suitable varieties once they are named and released.

One of the inherent problems associated with peach and nectarine production in south Alabama is that the chilling requirement may not be completely satisfied during some years. This is reflected in lower yields of most varieties in those years. Therefore, varieties with low chilling requirements were selected for the variety test.

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## MATERIALS AND METHODS

A variety evaluation planting was established at the Wiregrass Substation, Headland, in February 1979 to identify varieties of peaches and nectarines suited to the area. The planting included 70 varieties and selections of peaches and 16 varieties of nectarines. Four trees of each variety and selection were included in the planting. All varieties planted were on Lovell rootstock. Tree spacing was 20 feet by 20 feet.

The orchard was set on land that had not previously been planted to peaches. Prior to planting, the pH in the top 16 inches of soil was adjusted to 6.5. The lime required, as shown by soil test, was spread, the orchard site harrowed, and the area then turned with a bottom plow. The site was soil sampled again and additional lime required to raise the pH to 6.5 and the recommended phosphorous and potassium rates were broadcast and incorporated into the soil. The nutritional program in subsequent years also followed soil test recommendations, with adjustments made in nitrogen application based on vegetative growth. Recommended practices were followed for insect, nematode, and disease control. Paraquat and simazine were used for weed control in the rows, and middles were mowed. Pruning was done by hand each year in February. Each season the fruit was hand thinned as needed.

Dates of full bloom and fruit harvest were recorded for each variety. The rating systems used in fruit evaluation and reported in all tables are presented in table 1. Yield data were obtained by weighing the fruit at each harvest date and is presented as an average of the four trees of each variety.

Damage from bacterial leaf spot was determined in 1983 and 1984 using the rating system given in table 2.

TABLE 1. RATING SYSTEM FOR PEACH FRUIT EVALUATIONS

Variable	Rating
Skin color, attractiveness, fruit firmness, and stone-freeness .....	0 = poor, 10 = excellent
Pubescence .....	1 = none, 10 = excessive
Dessert quality .....	1,2 = acid, 3,4 = sub-acid, 5,6 = astringent
Fruit size .....	Average of 20 fruit measurements
Split pits .....	Percent of 20 fruit per variety

TABLE 2. INCIDENCE AND SEVERITY OF BACTERIAL LEAF SPOT AND BACTERIAL FRUIT SPOT RATING SYSTEM

Rating	Bacterial leaf spot		
	Severity	Leaves with bacterial spot	Defoliation
		<i>Pct.</i>	<i>Pct.</i>
0	None	None	None
1	Trace	0-5	None
2-3	Slight	6-20	0-5
4-6	Moderate	21-50	6-15
7-8	Severe	51-80	16-35
9-10	Very severe	81-100	36-100
	Bacterial fruit spot		
0	None		
1-3	Light		
4-6	Moderate		
7-10	Severe		

## RESULTS

Trees grew vigorously the first and subsequent years. The first yield data and fruit quality measurements were obtained in 1981, the third growing season, tables 3-6. During the first fruiting season, yields varied from less than 0.5 bushel to over 2.5 bushels per tree. In general, lighter fruit set and yields were obtained in 1983 and 1984 than would normally be expected. The low yields in 1984 reflect to some degree the severe pruning done during the dormant season to reduce tree height.

The incidence of split pits was a severe problem with some varieties and selections of both peaches and nectarines. The split pit problem was more severe in some years than others, tables 3-6. Of the best performing peach varieties, June Gold, Vivid, and Harbrite had a higher incidence of split pits than other varieties.

Bacterial leaf and fruit spot was not a severe problem on the varieties in this test planting, tables 5 and 6. No large spots or cracking of the fruit resulted from the incidence of bacterial fruit spot which occurred. Bacterial leaf spot infection with resulting defoliation occurred in 1983 and 1984. Bacterial fruit spot was not evident in 1983, but some small spots were evident in 1984.

TABLE 3. 1981 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Flesh color	Percent split pits
Arm Gold .....	5-13	1.95	6.0	5.0	6.0	8.0	1.0	3.0	47.8	Y <sup>1</sup>	0
Camden .....	5-13	2.03	9.0	6.0	8.0	7.5	1.0	3.0	43.7	Y	20
Springcrest .....	5-13	1.90	8.0	5.0	7.0	7.0	1.0	3.0	50.7	Y	15
Springtime .....	5-13	2.00	8.9	5.0	7.0	7.0	1.0	3.0	45.3	W <sup>2</sup>	15
YP 71303-20 .....	5-13	1.90	9.0	5.0	7.0	7.0	1.0	3.0	35.5	Y	20
YP 71303-9 .....	5-13	1.80	7.0	5.0	6.0	7.5	1.0	3.0	39.1	Y	10
Hamlet .....	5-18	2.15	7.0	6.0	7.0	7.0	1.0	3.0	51.9	Y	0
Springgold .....	5-18	2.13	7.0	5.6	6.5	7.5	1.0	3.0	68.3	Y	15
Bicentennial .....	5-21	2.05	4.0	4.5	6.0	7.0	1.0	3.0	70.2	Y	0
Sunbrite .....	5-21	2.20	5.0	5.0	6.0	8.0	1.0	3.0	26.4	Y	5
74-1-9 .....	5-25	2.00	8.0	5.0	7.0	7.0	1.0	3.0	57.9	Y	0
June Gold .....	5-28	2.55	4.0	5.0	5.5	8.9	1.0	3.0	20.4	Y	10
72-1-4 .....	5-28	2.20	5.0	6.5	5.0	8.9	1.0	3.0	28.4	Y	5
73-2-42 .....	5-28	2.25	7.0	7.0	7.0	8.0	1.0	4.0	54.4	Y	0
74-1-52 .....	5-28	2.30	5.0	7.0	7.0	8.0	1.0	3.0	37.2	Y	0
May Gold .....	6-01	2.35	7.5	6.0	7.0	7.0	1.0	3.0	43.2	Y	15
Redcap .....	6-01	2.35	7.0	5.5	7.5	7.5	1.5	3.5	50.0	Y	10
Rubired .....	6-01	2.40	8.5	4.0	9.0	8.5	1.0	3.0	27.1	Y	15
Sweethaven .....	6-01	2.40	8.5	3.0	7.5	7.0	1.0	3.0	27.8	Y	0
71-A73-34 .....	6-04	2.11	6.0	7.0	6.0	8.0	1.0	3.0	70.3	Y	0
Bonanza II .....	6-08	2.45	8.0	6.0	8.0	7.0	7.0	4.5	23.9	Y	15
Brighton .....	6-08	2.26	4.5	5.0	5.5	8.5	10.0	3.0	55.0	Y	10
Cornet .....	6-08	2.10	6.0	5.0	7.0	3.0	2.0	3.0	63.4	Y	35
Sentinel .....	6-08	2.21	6.0	6.5	4.0	3.0	3.0	3.0	104.3	Y	0
0-86-144 .....	6-08	2.08	8.5	4.0	7.5	8.0	1.0	3.0	54.8	Y	0
4-3751 .....	6-08	2.40	7.0	4.0	9.0	5.0	2.0	3.0	96.9	Y	20
5-A-11-6 .....	6-08	2.20	7.0	7.0	6.5	8.0	1.0	4.0	107.3	Y	0
Idlewild .....	6-08	2.05	3.0	6.0	5.5	8.0	2.0	6.0	133.6	Y	0
73-1-25 .....	6-08	2.50	7.0	4.0	7.0	8.0	1.5	3.0	53.9	Y	25
Flordagold .....	6-11	2.15	9.0	5.0	7.0	8.0	4.0	3.0	53.0	Y	5
Harbrite .....	6-11	2.26	4.0	4.0	5.0	8.5	10.0	3.0	82.5	Y	25
Harken .....	6-11	2.35	7.0	5.0	8.0	8.0	10.0	3.0	58.1	Y	20
73-1-48 .....	6-11	2.18	8.0	5.0	7.5	7.0	1.0	4.0	32.6	Y	0

<sup>1</sup>Yellow; <sup>2</sup>White.

Continued

TABLE 3. (CONTINUED) 1981 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Flesh color	Percent split pits
Harvester .....	6-15	2.21	7.5	7.0	7.0	8.5	7.5	3.0	80.3	Y	0
Rio Grande .....	6-15	2.20	10.0	7.0	2.0	5.0	1.0	4.0	50.5	Y	0
Vivid .....	6-15	2.40	6.5	6.0	7.0	8.0	10.0	3.0	52.6	Y	0
La Gold .....	6-18	2.10	2.5	4.0	5.5	8.5	7.5	3.0	34.0	Y	15
Velvet .....	6-18	2.31	7.0	5.0	6.0	7.5	7.0	3.0	22.4	Y	15
72-3-3 .....	6-18	2.45	4.0	4.0	6.0	8.0	10.0	3.0	63.2	Y	35
Cary Mac .....	6-22	2.25	6.5	6.0	7.0	8.0	9.0	3.0	53.0	Y	0
Cullinan .....	6-22	2.45	8.5	4.0	8.0	8.0	9.5	3.0	64.3	Y	10
Jayhaven .....	6-22	1.84	6.0	5.0	7.0	8.0	5.0	3.0	35.6	Y	0
Keystone .....	6-25	2.35	2.0	4.0	8.0	8.5	9.0	3.0	77.5	Y	0
Topaz .....	6-25	2.65	8.0	4.0	8.0	8.5	10.0	3.0	58.5	Y	0
Wild Rose .....	6-25	2.33	3.0	4.0	6.0	7.0	9.0	3.0	58.0	W	0
Saturn .....	6-29	2.30	2.0	4.0	5.5	5.0	1.5	2.5	66.0	Y	0
Winblo .....	6-29	2.50	7.0	5.0	8.0	8.5	10.0	3.0	58.7	Y	0
63-4-5 .....	7-02	2.38	6.0	5.0	7.0	9.0	10.0	3.0	46.1	Y	0
Loring .....	7-06	2.70	5.0	4.0	7.0	9.0	10.0	3.0	64.9	Y	0
71-A73-3 .....	7-06	2.35	8.0	5.0	8.5	7.0	10.0	4.0	68.7	Y	10
81-23 .....	7-06	2.25	6.0	5.0	8.0	9.0	10.0	3.0	121.3	Y	0
All Red Elberta .....	7-09	2.33	8.0	4.0	6.0	9.0	10.0	3.0	29.6	Y	0
Canadian Harmony .....	7-09	2.55	8.5	3.0	9.5	9.0	10.0	3.0	69.8	Y	0
Red Baron .....	7-09	2.18	3.0	5.0	5.0	8.0	8.0	6.0	36.3	Y	0
Red Kist .....	7-09	2.20	7.5	5.0	7.5	8.0	10.0	4.0	46.6	Y	0
Summer Gold .....	7-09	2.70	6.5	4.5	6.5	8.5	10.0	3.0	72.0	Y	0
72-6-6 .....	7-09	2.60	7.0	5.0	8.0	9.0	10.0	4.0	51.1	Y	15
73-1-4 .....	7-09	2.28	8.0	4.0	8.0	9.0	10.0	3.0	93.8	Y	15
Blake .....	7-20	2.40	7.0	4.0	7.0	8.5	10.0	3.0	38.7	Y	0
Dixiland .....	7-20	2.50	7.0	6.5	6.5	9.0	10.0	3.0	56.5	Y	0
Harvis .....	7-20	2.80	7.5	4.0	9.5	9.5	10.0	4.0	32.1	Y	0
Redskin .....	7-20	2.10	6.0	4.0	4.5	9.0	10.0	3.0	71.5	Y	0
Golden Blush .....	7-23	2.70	4.5	4.0	7.0	9.0	10.0	3.0	23.1	Y	20
Fay Elberta .....	7-27	2.50	6.5	4.0	7.5	8.5	10.0	4.0	34.2	Y	0
Marqueen .....	8-03	2.60	6.5	3.0	7.5	9.0	10.0	4.0	34.7	Y	0
Sweet Sue .....	8-10	2.60	7.5	3.5	7.5	10.0	10.0	4.0	73.4	Y	0
White Hale .....	8-10	2.90	3.5	3.5	6.0	7.0	10.0	3.0	16.3	W	0

TABLE 4. 1982 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Percent split pits
YP 71303-9 .....	5-05	2.22	9	5	3	7	1	4.0	100.6	0
YP 71303-20 .....	5-05	2.26	9	3	4	5	1	3.5	80.3	80
Camden .....	5-05	2.21	9	3	5	4	1	3.4	105.0	60
Springold .....	5-10	2.15	9	4	7	7	1	3.5	119.9	0
Arm Gold .....	5-10	2.18	8	2	4	8	1	3.5	86.8	100
Springcrest .....	5-10	2.13	7	2	6	8	1	3.5	105.4	20
Springtime .....	5-10	2.16	7	2	6	8	1	3.5	54.2	60
9-239 .....	5-10	2.26	9	2	6	4	1	4.0	8.3	0
Hamlet .....	5-13	2.14	8	5	5	5	1	4.0	118.9	20
Sunbrite .....	5-17	2.27	8	4	7	4	1	6.0	76.3	20
Bicentennial .....	5-17	2.09	7	5	6	7	1	3.0	141.8	0
3-600 .....	5-17	2.14	8	2	5	4	1	3.0	4.6	10
74-1-9 .....	5-17	2.18	7	3	5	7	1	4.0	107.4	0
72-1-14 .....	5-20	2.35	7	2	7	7	1	3.5	24.4	80
Flordagold .....	5-20	2.50	7	3	8	7	1	3.0	25.3	40
June Gold .....	5-20	2.50	6	2	6	7	1	2.0	114.5	70
Redcap .....	5-24	2.41	6	3	6	7	1	3.0	54.0	20
74-1-52 .....	5-24	2.33	8	4	7	5	1	4.0	66.7	0
May Gold .....	5-24	2.22	8	4	6	8	1	4.0	109.6	10
73-2-42 .....	5-27	2.24	7	4	6	7	2	3.0	86.1	0
4-3751 .....	5-27	2.39	6	2	6	7	4	2.0	88.5	20
5-A-11-6 .....	5-31	2.38	7	2	7	7	1	4.0	122.0	0
0-86-144 .....	5-31	2.22	7	4	3	7	1	3.0	101.9	0
Sweethaven .....	5-31	2.11	8	4	5	7	5	4.0	5.5	0
Idlewild .....	5-31	2.28	7	4	6	7	2	3.5	114.4	0
71-A73-34 .....	5-31	2.14	6	5	5	7	9	6.0	108.7	0
Rubired .....	5-31	2.30	7	2	6	8	8	3.0	3.5	0
Rio Grande .....	6-03	2.50	7	7	8	7	9	6.0	113.7	10
Cornet .....	6-03	2.21	7	3	7	8	1	3.0	66.3	0
Bonanza II .....	6-03	2.24	6	4	7	7	8	6.0	25.0	10
Sentinel .....	6-03	2.24	7	4	8	7	2	3.0	128.8	10
Brighton .....	6-07	2.08	7	4	6	7	10	3.0	122.5	—*
73-1-25 .....	6-07	2.50	6	2	6	8	2	3.5	21.4	—*
Harken .....	6-07	2.38	8	2	8	7	9	3.0	104.6	—*

Continued



TABLE 4. (CONTINUED) 1982 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Percent split pits
Cullinan .....	6-14	2.50	7	2	8	7	10	3.5	23.5	—*
Vivid .....	6-14	2.50	9	2	7	8	9	3.0	85.2	—*
Harvester .....	6-14	2.34	9	2	6	8	8	3.0	168.0	—*
Harbrite .....	6-14	2.38	6	2	6	8	10	3.5	66.8	—*
Cary Mac .....	6-14	2.50	9	2	8	7	10	3.0	89.2	0
Velvet .....	6-17	2.41	8	2	6	7	10	3.5	100.2	0
72-3-3 .....	6-17	2.40	8	2	6	7	10	3.5	165.3	0
Keystone .....	6-17	2.50	9	2	8	8	10	3.0	101.4	0
Topaz .....	6-19	2.50	10	3	8	7	9	2.0	24.7	0
La Gold .....	6-21	2.44	5	2	6	7	10	3.0	59.8	0
Saturn .....	6-21	2.42	2	2	7	7	10	3.0	83.7	0
Wild Rose .....	6-21	2.38	5	2	5	7	10	3.0	127.1	0
81-23 .....	6-21	2.50	7	2	7	7	10	3.0	143.2	0
72-6-6 .....	6-24	2.50	8	2	8	7	10	3.0	87.4	0
71-A73-3 .....	6-24	2.50	8	4	7	7	10	4.0	142.6	0
Canadian Harmony .....	6-28	2.50	8	2	8	7	10	4.0	58.0	—*
Winblo .....	6-28	2.50	8	2	7	7	10	4.0	75.6	0
Red Kist .....	6-28	2.50	7	2	7	7	10	3.0	30.8	0
63-4-5 .....	6-28	2.50	8	3	8	7	10	4.0	107.0	0
Summer Gold .....	7-01	2.50	9	2	8	5	10	4.0	155.0	0
Loring .....	7-01	2.50	8	2	9	7	10	3.0	114.5	20
Jayhaven .....	7-01	2.42	9	2	7	5	10	4.0	2.5	0
Red Baron .....	7-01	2.43	6	3	6	5	7	4.0	118.6	10
73-1-4 .....	7-06	2.50	9	2	6	7	10	3.5	103.9	—*
All Red Elberta .....	7-08	2.50	8	4	7	7	10	3.0	121.6	10
Dixiland .....	7-12	2.50	6	2	7	7	10	2.5	166.0	—*
Blake .....	7-12	2.50	7	2	7	7	10	3.5	27.1	10
Redskin .....	7-15	2.47	8	2	7	7	10	3.5	108.9	—*
Harvis .....	7-15	2.50	7	2	9	7	10	3.5	46.3	0
Fay Elberta .....	7-19	2.50	8	2	7	7	10	3.0	90.6	—*
Golden Blush .....	7-22	2.50	7	2	7	7	10	3.0	14.1	—*
White Hale .....	7-22	2.50	7	2	10	7	10	3.0	104.4	—*
Marqueen .....	7-22	2.44	8	2	7	7	10	3.5	79.2	—*
Sweet Sue .....	7-22	2.50	8	2	7	7	10	6.0	29.6	—*

\*No data available.

TABLE 5. 1983 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh Firmness	Stone-freeness	Dessert quality	Yield, lb/tree	Bacterial leaf spot severity	Bacterial fruit spot severity
YP 71303-9 .....	5-23	2.08	9	2	6	8	1	4	71.8	7	
YP 71303-20 .....	5-23	2.24	9	3	6	7	1	3	72.2	9	No damage in 1983
Camden .....	5-23	2.37	8	2	5	8	1	2	37.0	5	
Arm Gold .....	5-26	2.38	9	2	6	8	1	4	15.7	7	
Springtime .....	5-26	2.20	9	2	7	8	1	4	72.3	3	
Sunbrite .....	5-30	2.33	9	2	7	8	1	2	22.2	—*	
Springcrest .....	5-30	2.27	8	2	5	7	1	2	49.4	4	
Hamlet .....	5-30	2.38	7	2	7	9	1	4	108.6	1	
Springgold .....	5-30	2.37	9	2	7	8	1	4	76.9	3	
Bicentennial .....	6-6	2.24	7	2	6	8	1	3	103.7	1	
74-1-9 .....	6-9	2.45	9	2	8	8	1	3	232.5	0	
9-239 .....	6-9	1.88	8	2	5	7	1	2	28.2	4	
0-86-144 .....	6-9	2.19	7	2	6	8	1	0	146.4	5	
June Gold .....	6-9	2.44	8	2	7	8	1	4	82.8	6	
3-600 .....	6-9	2.20	8	2	6	8	1	4	67.2	2	
May Gold .....	6-9	2.44	8	2	8	9	1	2	10.4	9	
74-1-52 .....	6-13	2.16	9	3	7	8	1	3	237.5	2	
Flordagold .....	6-13	2.14	9	3	5	6	1	2	133.4	8	
Redcap .....	6-13	2.32	9	3	8	6	1	3	61.85	2	
73-2-42 .....	6-13	2.25	9	4	8	8	1	3	130.9	0	
Sweethaven .....	6-13	2.38	8	2	8	8	1	3	127.3	0	
5-A-11-6 .....	6-16	2.40	6	2	9	8	1	2	146.9	2	
Sentinel .....	6-20	2.19	7	2	7	8	2	4	115.1	1	
4-3751 .....	6-20	2.45	9	2	7	7	10	2	76.1	3	
Rubired .....	6-20	2.29	9	2	6	8	10	4	2.2	2	
71-A73-34 .....	6-23	2.31	10	4	6	8	2	4	230.6	2	
Cornet .....	6-23	2.47	7	2	8	8	10	4	39.9	3	
Bonanza II .....	6-23	2.48	8	4	8	8	2	3	86.2	0	
Brighton .....	6-23	2.35	8	3	8	8	10	3	128.7	2	
73-1-48 .....	6-23	2.38	8	2	7	8	10	4	19.2	—*	
Idlewild .....	6-27	2.39	10	3	7	8	10	4	235.6	0	
73-1-25 .....	6-27	2.42	8	2	9	8	10	3	195.8	1	

Continued

TABLE 5. (CONTINUED) 1983 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh Firmness	Stone-freeness	Dessert quality	Yield, lb/tree	Bacterial leaf spot severity	Bacterial fruit spot severity
Topaz .....	6-30	2.44	10	3	9	8	10	3	89.6	0	
Rio Grande .....	6-30	2.13	8	3	7	3	10	4	93.8	2	
Vivid .....	6-30	2.48	9	3	9	8	10	2	180.9	4	
72-3-3 .....	6-30	2.50	8	3	8	8	10	4	91.3	1	
Cary Mac .....	6-30	2.45	7	3	8	8	10	3	80.5	0	
Harvester .....	6-30	2.45	7	2	7	9	10	3	124.2	1	
Harbrite .....	6-30	2.44	10	2	8	8	10	3	198.2	1	
Velvet .....	6-30	2.49	8	2	8	8	10	3	87.0	3	
Harken .....	6-30	2.48	7	2	9	8	10	4	141.2	1	
Cullinan .....	6-30	2.50	10	2	10	8	10	3	48.6	0	
La Gold .....	7-5	2.28	6	4	5	7	10	4	157.9	1	
Jayhaven .....	7-7	2.50	6	2	9	7	10	3	89.2	0	
Winblo .....	7-11	2.44	5	3	8	8	10	3	70.5	3	
Canadian Harmony	7-11	—	5	3	8	3	10	4	99.9	2	
Red Kist .....	7-11	2.34	6	2	6	8	10	3	118.1	2	
Loring .....	7-11	2.50	4	2	9	8	10	4	131.7	1	
Wildrose .....	7-11	2.41	2	2	5	8	10	4	104.7	1	
Keystone .....	7-11	2.50	3	3	9	8	10	3	91.7	1	
81-23 .....	7-14	2.27	8	3	8	8	10	3	121.4	3	
63-4-5 .....	7-14	2.29	6	3	7	8	10	4	91.8	0	
Summer Gold .....	7-14	2.50	8	4	9	7	10	3	163.8	5	
73-1-4 .....	7-21	2.37	7	3	6	8	10	4	96.7	2	
72-6-6 .....	7-21	2.38	7	2	7	8	10	2	141.6	2	
Dixiland .....	7-25	2.50	7	4	7	8	10	3	110.3	3	
All Red Elberta .....	7-25	2.50	5	3	8	8	10	2	105.0	4	
Red Baron .....	8-1	2.29	7	3	6	8	10	4	25.1	7	
Blake .....	8-1	2.50	7	2	9	8	10	3	51.3	2	
Harvis .....	8-1	2.37	8	2	6	8	10	4	51.6	7	
Redskin .....	8-1	2.43	6	2	8	8	10	3	103.5	4	
Fay Elberta .....	8-1	2.50	6	3	8	8	10	3	39.6	2	
White Hale .....	8-8	2.35	7	3	7	8	10	3	49.5	5	
Marqueen .....	8-15	2.50	7	3	6	8	10	4	77.4	2	
Sweet Sue .....	8-18	2.43	6	3	6	9	10	4	50.3	0	

\*No data available.

TABLE 6. 1984 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Date of full bloom	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Percent split pits	Bacterial leaf spot severity	Bacterial fruit spot severity
Brighton .....	6-14	3-7	2.11	8	4	6	6	10	3.0	68.4	15	4	3
73-1-25 .....	6-14	3-12	2.50	8	4	7	7	10	4.0	107.1	70	3	3
Vivid .....	6-18	3-17	2.50	7	3	8	7	10	3.0	117.6	50	4	1
Harken .....	6-18	3-12	2.39	9	3	10	8	10	3.0	103.4	0	0	0
72-3-3 .....	6-21	3-12	2.38	9	4	8	7	10	4.0	91.0	0	2	2
Cary Mac .....	6-21	3-9	2.50	8	3	9	8	10	4.0	61.4	5	0	0
Harvester .....	6-21	3-10	2.50	8	2	10	8	10	3.0	113.5	0	0	0
Harbrite .....	6-21	3-15	2.40	7	4	10	7	10	3.0	187.0	5	0	0
La Gold .....	6-21	3-7	2.50	4	6	9	6	10	3.5	80.2	0	0	0
Topaz .....	6-25	3-8	2.42	9	4	10	8	10	3.0	43.2	5	2	2
Velvet .....	6-25	3-6	2.41	9	3	10	8	10	3.0	67.5	0	1	1
Cullinan .....	6-25	3-14	2.50	6	5	9	6	10	3.0	42.6	45	2	2
Keystone .....	6-28	3-10	2.50	6	6	9	7	10	3.0	52.4	25	2	0
72-6-6 .....	6-28	3-12	2.50	7	4	10	8	10	4.0	111.2	5	2	2
Rio Grande .....	7-02	2-27	2.38	9	6	3	9	10	4.0	14.9	10	7	7
Jayhaven .....	7-02	3-16	2.50	9	4	8	8	10	3.0	79.5	0	0	0
Winblo .....	7-02	3-12	2.50	8	4	10	8	10	3.0	115.0	0	2	0
Canadian Harmony	7-02	3-10	2.45	8	4	8	7	10	3.0	32.9	0	3	3
Loring .....	7-02	3-8	2.50	9	3	10	9	10	3.0	61.4	10	4	3
Wild Rose .....	7-02	3-8	2.50	6	3	10	4	10	4.0	152.0	0	0	0
81-23 .....	7-02	2-27	2.50	9	6	10	8	10	3.0	85.0	0	0	0
73-1-14 .....	7-02	3-12	2.50	9	4	9	8	10	3.0	48.9	5	4	4
73-A73-3 .....	7-05	2-27	2.50	10	6	8	8	10	3.0	145.5	0	0	0
63-4-5 .....	7-05	3-12	2.50	8	5	8	9	10	3.0	127.6	0	0	0
Saturn .....	7-05	2-27	2.23	2	5	8	6	10	—*	110.5	0	2	2
Red Kist .....	7-09	3-9	2.50	7	2	9	6	10	4.0	67.8	0	0	0
Summer Gold .....	7-12	3-12	2.50	10	5	8	5	10	3.0	108.5	0	7	3
All Red Elberta .....	7-12	3-14	2.50	9	4	9	8	10	3.0	50.1	20	9	8
Red Baron .....	7-16	3-4	2.50	7	4	7	8	10	2.0	54.1	0	10	10
YP 71303-9 .....	5-14	2-27	2.22	8	2	6	7	1	4.0	70.4	60	2	2
YP 71303-20 .....	5-14	2-29	2.12	9	3	6	7	1	4.0	62.3	65	2	2
Camden .....	5-14	3-7	2.06	6	4	5	6	1	2.0	27.1	90	3	3
Arm Gold .....	5-14	3-14	2.19	7	3	4	8	1	2.0	22.8	80	3	5
Springold .....	5-14	3-7	2.22	6	2	6	8	1	2.0	46.0	55	2	3

Continued

TABLE 6. (CONTINUED) 1984 PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety or line	Date of first harvest	Date of full bloom	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Yield, lb./tree	Percent split pits	Bacterial leaf spot severity	Bacterial fruit spot severity
9-239 .....	5-14	3-11	2.32	5	5	7	5	1	3.0	13.2	90	1	1
Springtime .....	5-17	3-7	2.18	8	2	7	5	1	4.0	46.5	80	3	3
Springcrest .....	5-17	3-10	2.10	7	3	6	6	1	2.0	24.9	70	2	2
Hamlet .....	5-21	3-14	2.35	7	6	8	8	1	4.0	114.5	10	1	1
Sunbrite .....	5-28	3-8	2.26	10	3	6	8	1	3.0	19.3	5	10	10
Bicentennial .....	5-28	3-10	2.20	5	2	8	7	1	3.0	65.4	0	2	1
74-1-9 .....	5-28	3-8	2.40	4	4	6	5	1	3.0	50.0	15	1	1
June Gold .....	5-31	3-7	2.43	7	3	7	9	1	3.0	20.6	80	9	6
3-600 .....	5-31	3-6	2.50	8	2	8	7	1	3.0	32.8	20	3	3
74-1-52 .....	5-31	3-5	2.50	7	3	8	8	1	4.0	104.7	20	2	2
73-2-42 .....	5-31	3-12	2.36	6	4	4	5	6	4.0	28.1	75	1	1
0-86-144 .....	6-04	3-10	2.38	8	3	7	7	1	4.0	19.8	25	3	3
Redcap .....	6-04	3-13	2.50	6	6	7	7	3	4.0	45.1	20	1	1
Sweethaven .....	6-04	3-15	2.43	8	4	8	7	10	4.0	69.8	5	2	2
May Gold .....	6-07	3-13	2.03	9	5	6	5	1	3.0	38.0	0	4	4
5-A-11-6 .....	6-07	3-12	2.44	8	6	6	8	1	4.0	59.1	25	2	2
Rubired .....	6-07	3-14	2.50	7	3	7	6	10	2.0	7.8	30	1	1
73-1-48 .....	6-07	3-9	2.41	8	6	7	8	8	3.0	79.3	20	1	1
71-A73-34 .....	6-07	3-2	2.29	9	5	6	6	10	4.0	64.3	0	2	2
Idlewild .....	6-11	3-2	2.50	6	5	8	6	10	3.0	98.5	30	5	1
Flordagold .....	6-11	2-20	2.12	9	3	6	6	1	2.0	12.9	0	3	3
Sentinel .....	6-11	3-10	2.50	8	4	7	6	5	3.0	80.1	10	3	1
Bonanza II .....	6-11	3-11	2.25	7	4	8	6	10	3.0	135.5	0	1	1
4-3751 .....	6-14	3-7	2.26	9	4	6	7	10	4.0	35.4	35	1	1
Cornet .....	6-14	3-8	2.07	9	2	5	6	10	3.0	76.7	10	3	3
Dixiland .....	7-19	3-7	2.50	9	5	9	9	10	2.5	50.9	5	2	2
Blake .....	7-19	3-11	2.50	6	3	7	7	10	3.0	62.9	0	2	2
Harvis .....	7-23	3-10	2.50	9	3	8	10	10	6.0	15.3	20	0	0
Redskin .....	7-23	3-9	2.45	6	5	6	10	10	3.0	100.8	5	6	3
Fay Elberta .....	7-23	3-9	2.39	7	5	8	8	10	3.0	63.3	10	2	2
White Hale .....	7-26	3-12	2.50	6	4	5	9	10	4.0	30.7	15	2	2
Golden Blush .....	7-26	3-14	2.38	8	3	7	7	10	4.0	17.6	0	8	8
Marqueen .....	7-30	3-10	2.50	7	4	8	7	10	3.0	38.0	0	3	3
Whitaker .....	7-30	3-10	2.38	10	4	7	6	10	4.0	13.6	0	3	3
Sweet Sue .....	8-2	3-12	2.50	8	4	6	7	10	3.0	14.9	0	3	3

\*No data available.

## PEACH VARIETIES AND SELECTIONS

The following peach varieties performed best for commercial shipping, roadside market production, and/or home use in Wiregrass Substation trials. The average performance of each is presented in tables 7-9.

**Springgold** (F.V. 89-14 x Fireglow x Springtime) was tested as F.V. 9-149 and introduced in 1966 by the USDA Horticultural Field Station, Fort Valley, Georgia. Average ripening date is May 18. The medium sized, clingstone fruit are round with a non-prominent tip and suture and have light pubescence. Fruits are attractive with a medium yellow undercolor and 76 percent bright red blush. The flesh is firm, melting, medium in texture, subacid, and of good quality for the season. Trees of Springgold are vigorous, productive, and self-fertile. Split pits averaged 23 percent during the test period. A slight incidence of bacterial spot disease was observed on both foliage and fruit. Processing quality has not been determined. It has a chilling requirement of 850 hours below 45°F.

**Hamlet** (Pekin x Candor) was tested as NC 2684 and introduced in 1978 by North Carolina State University. Average ripening date for Hamlet is May 21. The medium sized, clingstone fruit are round with a protruding tip and have medium pubescence. Fruits are attractive with a medium yellow undercolor and a bright red blush covering 70 percent of the

TABLE 7. RIPENING DATES OF THE BEST PERFORMING PEACH VARIETIES, WIREGRASS SUBSTATION, 1981-84

	Reported ripening date, days before Elberta	Actual average ripening date	Actual ripening date by year			
			1981	1982	1983	1984
Springgold .....	55	5-18	5-18	5-10	5-30	5-14
Hamlet .....	—	5-21	5-18	5-13	5-30	5-21
Bicentennial .....	54	5-26	5-21	5-17	6-6	5-28
June Gold .....	47	5-30	5-28	5-20	6-9	5-31
Sentinel .....	32	6-11	6-8	6-3	6-20	6-11
Idlewild .....	36	6-12	6-8	5-31	6-27	6-11
Brighton .....	34	6-13	6-8	6-7	6-23	6-14
Harken .....	25	6-16	6-11	6-7	6-30	6-18
Vivid .....	—	6-19	6-15	6-14	6-30	6-18
Harbrite .....	25	6-19	6-11	6-14	6-30	6-21
Harvester .....	23	6-20	6-15	6-14	6-30	6-21
Wildrose .....	21	6-22	6-25	6-21	7-11	7-2
Keystone .....	23	6-28	6-25	6-17	7-11	6-28
Winblo .....	11	7-2	6-29	6-28	7-11	7-2
Loring .....	12	7-5	7-6	7-1	7-11	7-2
Summergold .....	10	7-9	7-9	7-1	7-14	7-12
All Red Elberta	4	7-14	7-9	7-8	7-25	7-12
Dixiland .....	3	7-19	7-20	7-12	7-25	7-19
Redskin .....	1	7-22	7-20	7-15	8-1	7-23

TABLE 8. YIELD DATA INCIDENCE OF BACTERIAL SPOT AND INCIDENCE OF SPLIT PITS OF THE BEST PERFORMING PEACH VARIETIES AND SELECTIONS IN A TEST PLANTING AT THE WIREGRASS SUBSTATION, 1981-84

Variety or line	Average date of ripening	Yield per tree					Bacterial leaf spot		Bacterial fruit spot		Percent split pits
		1981	1982	1983	1984	Average	1983	1984	1983	1984	
		<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>					
<b>Named varieties</b>											
Springgold .....	5-18	68.3	119.9	76.9	46.0	77.8	3	2	None	3	23.3
Hamlet .....	5-21	51.9	118.9	108.6	114.5	98.5	1	1	in	1	10.0
Bicentennial .....	5-26	70.2	141.8	103.7	65.4	95.3	1	2	1983	1	0.0
June Gold .....	5-30	20.4	114.5	82.8	20.6	59.6	6	9		6	53.3
Sentinel .....	6-11	104.3	128.8	115.1	80.1	107.1	1	3		1	6.7
Idlewild .....	6-12	133.6	114.4	235.6	98.5	145.5	0	5		1	10.0
Brighton .....	6-13	55.0	122.5	128.7	68.4	93.7	2	4		3	12.5
Harken .....	6-16	58.1	104.6	141.2	103.4	101.8	1	0		0	10.0
Vivid .....	6-19	52.6	85.2	180.9	117.6	109.1	4	4		1	25.0
Harbrite .....	6-19	82.5	66.8	198.2	187.0	133.6	1	0		0	15.0
Harvester .....	6-20	80.3	168.0	124.2	113.5	121.5	1	0		0	.0
Wildrose .....	6-22	58.0	127.1	104.71	152.0	110.4	1	3		0	.0
Keystone .....	6-28	77.5	101.4	91.7	52.4	80.7	1	2		0	8.3
Winblo .....	7-2	58.7	75.6	70.5	115.0	79.9	3	4		2	.0
Loring .....	7-5	64.9	114.5	131.7	61.4	93.1	1	4		3	10.0
Summergold .....	7-9	72.0	155.0	163.8	108.5	124.8	5	7		3	.0
All Red Elberta .....	7-14	29.6	121.6	105.0	50.1	76.6	4	9		8	10.0
Dixiland .....	7-19	56.5	166.0	110.3	50.9	95.9	3	2		2	2.5
Redskin .....	7-23	71.5	108.9	103.5	100.8	96.2	4	6		3	2.5
<b>Lines</b>											
74-1-9 .....	5-27	57.9	107.4	232.5	50.0	111.9	0	1		1	5.0
74-1-52 .....	5-27	37.2	66.7	237.5	104.7	111.5	2	4		3	6.7
5-A-11-6 .....	6-8	107.3	122.0	146.9	59.1	108.8	2	3		2	8.3
73-1-25 .....	6-14	53.9	21.4	195.8	107.1	94.5	1	3		3	47.5
72-3-3 .....	6-22	63.2	165.3	91.3	91.0	102.7	1	1		1	11.7
72-6-6 .....	7-6	51.1	87.4	141.6	111.2	97.8	2	2		2	6.7
81-23 .....	7-6	121.3	143.2	121.4	85.0	117.7	3	4		2	.0
71-A73-3 .....	7-2	68.7	142.6	—	145.5	118.9	0	4		2	5.0
63-4-5 .....	7-7	46.1	107.0	91.8	127.6	93.1	0	0		0	.0

TABLE 9. AVERAGE FRUIT RATINGS OF THE BEST PERFORMING PEACH VARIETIES, WIREGRASS SUBSTATION, 1981-84

Variety	Average date of ripening	Fruit size, in.	Percent red color	Pubescence	Attractiveness	Flesh firmness	Stone-freeness	Dessert quality	Flesh color
Springgold .....	5-18	2.22	76	3.3	6.9	7.2	1.0	3.3	Y <sup>1</sup>
Hamlet .....	5-21	2.22	68	4.9	6.4	7.0	1.0	3.8	Y
Bicentennial .....	5-26	2.13	52	3.5	6.1	6.8	1.0	3.2	Y
June Gold .....	5-30	2.48	60	3.3	5.9	8.2	1.0	3.0	Y
Sentinel .....	6-11	2.35	74	4.3	6.8	6.4	2.6	3.6	Y
Idlewild .....	6-12	2.34	66	4.6	6.3	7.0	5.0	3.7	Y
Brighton .....	6-13	2.20	69	4.0	6.4	7.4	10.0	3.0	Y
Harken .....	6-16	2.40	78	3.0	8.8	7.8	9.8	3.3	Y
Vivid .....	6-19	2.47	79	3.5	7.8	7.8	9.8	2.8	Y
Harbrite .....	6-19	2.37	68	3.0	7.3	7.9	10.0	3.1	Y
Harvester .....	6-20	2.37	79	3.3	7.5	8.4	8.9	3.0	Y
Wildrose .....	6-22	2.46	48	2.8	6.8	6.0	9.8	3.6	W <sup>2</sup>
Keystone .....	6-28	2.55	58	3.9	8.4	7.9	10.0	2.9	Y
Winblo .....	7-2	2.53	72	3.2	8.3	7.8	10.0	3.2	Y
Loring .....	7-5	2.68	68	2.8	9.0	8.3	10.0	3.2	Y
Summergold .....	7-9	2.60	87	3.7	7.9	6.5	10.0	3.2	Y
All Red Elberta .....	7-14	2.51	80	3.7	7.7	8.4	10.0	2.8	Y
Dixiland .....	7-19	2.50	73	4.4	7.4	8.3	10.0	2.8	Y
Redskin .....	7-22	2.36	65	3.3	6.4	8.5	10.0	3.1	Y

<sup>1</sup>Yellow.<sup>2</sup>White.



surface. The flesh is firm, melting, and of good quality for its season. Trees of Hamlet are moderately vigorous, productive, and self-fertile. Split pits averaged 10 percent and incidence of bacterial spot disease was very low on foliage and fruit during the test period.

*Bicentennial* (LaGold x Redglobe) was tested as L-66-1-1 and introduced in 1977 by the Louisiana Agricultural Experiment Station, Baton Rouge, Louisiana. The average ripening date for Bicentennial is May 26. The fruit is round to ovate with an occasional slight tip, has light pubescence, small to medium size, and is semi-cling when fully ripe. It has a yellow undercolor with a bright red overcolor blushed and striped over 50 percent of the surface. The flesh is yellow, medium firm, melting, subacid, and of very good quality. Trees are vigorous, productive, and self-fertile. No split pits were observed during three years of evaluation. There was a slight incidence of bacterial leaf spot and no bacterial fruit spot on Bicentennial in the test planting. Processing quality has not been determined. Bicentennial has smaller fruit than June Gold, however, its yields are high and it does not have a split pit problem. The chilling requirement is about 700 hours below 45°F.

*June Gold* (Flaming x Springtime) was introduced by Armstrong Nurseries, Ontario, California, in 1958. Average ripening date for June Gold is May 30. The large clingstone fruit are round to ovate with a slight point and have light pubescence. The fruit is attractive and has a bright yellow undercolor with a deep red overcolor blushed and splashed over 60 percent of the surface. The flesh is melting but firm, fine textured, medium yellow, subacid, and of good quality for the season. Trees of June Gold are moderately vigorous, moderately productive, and self-fertile. Split pits averaged 53 percent during the 4-year test period. June Gold was 50 percent defoliated at harvest due to bacterial leaf spot and had a moderate amount of bacterial fruit spot. The bacterial fruit spot damage was not severe enough to detract from fruit appearance. The large size and attractive appearance of the fruit make it desirable for fresh market use in its ripening season. However, the high incidence of split pits limits its usefulness for commercial shipping. Its chilling requirement is 650 hours below 45°F.

*Sentinel* [FV5-56 (Halehaven selfed) x Dixigem] was tested as FV173-47 and introduced in 1966 by the USDA Horti-

cultural Field Station, Fort Valley, Georgia. Average ripening date for Sentinel is June 11. The medium sized attractive fruit is round with a slight point and non-prominent suture, has medium pubescence, and is freestone when fully mature. At maturity, it has a bright yellow undercolor with a bright red overcolor blushed and splashed over 70 percent of the surface. The flesh is yellow, firm but melting, subacid, and has good flavor and texture. Trees are vigorous, productive, and self-fertile. Split pits averaged 7 percent during the test period. Sentinel had a low incidence of bacterial leaf spot with 5 percent defoliation and a very slight incidence of bacterial fruit spot. Fruits are above average for canning. Its chilling requirement is about 850 hours below 45°F.

**Idlewild** (Open pollinated La Felicina seedling) was tested as L. 71-A73-30 and introduced in 1983 by the Louisiana Agricultural Experiment Station, Clinton, Louisiana. Average ripening date for Idlewild is June 12. The medium-large, attractive, semi-freestone fruit are round with a non-prominent tip and suture and have medium pubescence. Fruit have a yellow undercolor with a red overcolor blushed and striped over 70 percent of the surface. The flesh is yellow, firm, melting, slightly subacid, and of good quality for the season. Trees of Idlewild are vigorous, productive, and self-fertile. Split pits averaged 10 percent during the test period. The incidence of bacterial leaf spot and bacterial fruit spot was light. It has chilling requirement of 500-600 hours below 45°F.

**Brighton** (Sunhigh x Redhaven) was tested as NY 2622 and introduced in 1972 by the New York Agricultural Experiment Station, Geneva, New York. Average ripening date for Brighton is June 13. The small to medium fruit are round to ovate with a slight tip, have medium pubescence, and are freestone when fully ripe. It has a yellow undercolor with 70 percent of the surface covered with a red blush. The flesh is yellow, firm, melting, and of good quality. Trees are moderately vigorous, productive, and self-fertile. Split pits averaged 12 percent during the test period. The incidence of bacterial leaf spot was light on Brighton and resulted in 10 percent defoliation. Bacterial fruit spot incidence was light. Its chilling requirement is about 750 hours below 45°F.

**Harken** (Redskin x Sunhaven) was tested as H.2066 and introduced in 1970 by the Canada Agricultural Experiment Station, Harrow, Ontario. Average ripening date is June 16.

The medium to large, freestone fruit are round to ovate with a non-prominent tip and suture and have light pubescence. The attractive fruit has a bright yellow undercolor with a red overcolor covering 80 percent of the surface. The flesh is deep yellow, firm, melting, fine textured, and of good quality. The trees were moderately vigorous, productive, and had no incidence of bacterial spot disease. Split pits averaged 10 percent during the test period. Fruits of Harken are above average for canning and freezing. It has a chilling requirement of about 850 hours below 45°F.

*Vivid* (Sunhigh x V46042 (Early Halehaven x Envoy) was tested as V55115 and introduced in 1974 by the Horticultural Research Institute of Ontario, Vineland, Ontario. Average ripening date for Vivid is June 19. The large, freestone fruit is round to ovate with a protruding tip and has light pubescence. Fruit is attractive with a yellow undercolor and a deep red blush covering 80 percent of the surface. The flesh is yellow, firm, melting, and of good quality. Trees of Vivid are vigorous, productive, and self-fertile. Split pits averaged 25 percent during the test period. Slight defoliation due to bacterial leaf spot occurred each year and there was light speckling of fruit due to bacterial fruit spot infection. This highly colored, large fruit would be good for local markets but, due to enlarged tips and a high percentage of split pits in some years, its desirability for commercial shipments may be limited.

*Harbrite* (Redskin x Sunhaven) was tested as H.430 and introduced in 1969 by the Canada Agricultural Experiment Station, Harrow, Ontario. Average ripening date is June 19. The medium to large, freestone fruit is round with a non-prominent tip and suture and has light pubescence. The attractive fruit have a yellow undercolor with a bright red blush covering 70 percent of the surface. The flesh is yellow, firm, melting, fine textured, and of good quality. Trees of Harbrite are vigorous, productive, and self-fertile. Split pits averaged 15 percent during the test period. Bacterial leaf and fruit spot was not observed on Harbrite. Fruits are considered above average for canning and freezing. It has a chilling requirement of about 850 hours below 45°F.

*Harvester* (Redskin x Southern Glo) was tested as L-61-2-42 and introduced in 1964 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. Average ripening date of Harvester is June 20. The medium-large, freestone fruit is round with a non-protruding tip and suture and has light

pubescence. Fruit are attractive with a yellow undercolor and a dark red overcolor blushed and splashed over 80 percent of the surface. The flesh is yellow, firm, melting, and of good quality. Trees of Harvester are vigorous, productive, and self-fertile. No bacterial leaf or fruit spot was evident on Harvester. Fruit have good canning quality. Its chilling requirement is about 750 hours below 45°F.

*Wildrose* (J.H. Hale x Delicious) was tested as N.J. 118 and introduced in 1947 by the New Jersey Agricultural Experiment Station, New Brunswick, New Jersey. Average ripening date is June 22. The large, freestone fruit are round to ovate with a prominent suture occurring some years and have light pubescence. Fruits are attractive with a greenish-yellow undercolor and a dull rose overcolor blushed and mottled over 50 percent of the surface. The flesh is white with red pigment around the pit cavity, medium in firmness, melting, and of fair to good quality. Fruit quality is affected by the weather with fair quality during wet seasons and good quality during dry seasons. Trees of Wildrose are vigorous, productive, and self-fertile. No split pits were observed during the evaluation period. Incidence of bacterial leaf spot was slight and no bacterial fruit spot was observed. Wildrose lacks the firmness required for commercial shipping, but it should do well for home use and roadside markets. It has a chilling requirement of 750 hours below 45°F.

*Keystone* (Newday x Southland) was tested as F.V. 177-17 and introduced in 1954 by the USDA Horticultural Field Station, Fort Valley, Georgia. Average ripening date is June 28. The large, attractive, freestone fruit is round to ovate with a non-prominent tip and suture and has medium pubescence. It has a bright yellow undercolor and a bright red overcolor blushed and striped over 60 percent of the surface. During some years it may lack sufficient color for commercial shipping. The flesh is yellow with red pigmentation near the pit, firm, melting, and of good quality. Trees of Keystone are vigorous, moderately productive, and self-fertile. Split pits averaged 8 percent during the test period. A light incidence of bacterial leaf spot occurred on Harvester resulting in 5 percent defoliation. No bacterial fruit spot was evident. Fruits have above average canning and freezing quality. Its chilling requirement is about 750 hours below 45°F.

*Winblo* (Redhaven selfed) was tested as NC 8969 and introduced in 1972 by the North Carolina Agricultural Experiment

Station, Jackson Springs, North Carolina. Average ripening date for Winblo is July 2. The large, attractive, freestone fruit is round to ovate with a non-prominent tip and suture and has light pubescence. It has a yellow undercolor with a bright red overcolor blushed and splashed over 70 percent of the surface. The flesh is yellow, firm, melting, and of good quality. Trees of Winblo are vigorous, productive, and self-fertile. No split pits were observed during 3 years of evaluation. Bacterial leaf spot was light to medium on Winblo and resulted in 10 percent defoliation. The incidence of bacterial fruit spot was light. Fruit have good freezing and canning quality. Its chilling requirement is about 800 hours below 45°F.

*Loring* (Frank x Halehaven) was introduced in 1946 by the Missouri Fruit Experiment Station, Mountain Grove, Missouri. Average ripening date for Loring is July 5. The large, freestone fruit is oval in shape with a deep suture and manniform tip, attractive, and has light pubescence. Loring has a yellow undercolor with a deep red blush covering 70 percent of the surface. In extremely hot weather, red color does not develop well and tends to be dull. The flesh is yellow with red pigment near the pit, firm, melting, medium in texture, and of good quality. Trees are vigorous, moderately productive, and self-fertile. Split pits averaged 10 percent during the test period. The incidence of bacterial leaf spot was slight on Loring, resulting in 10 percent defoliation. Incidence of bacterial fruit spot was light on the fruit. Fruits are below average for canning. It has a chilling requirement of 750 hours for flower buds and 950 hours for leaf buds.

*Summergold* [V.370224 (J. H. Hale x Valiant) x Redglobe] was introduced in 1970 by the USDA Horticultural Field Station, Fort Valley, Georgia. Average ripening date for Summergold is July 9. The large, attractive, freestone fruit is round with a slight tip and a prominent suture some years and has medium pubescence. Summergold has a yellow undercolor with a bright red blush covering 90 percent of the surface. The flesh is yellow, firm, melting, fine textured, and of good quality. Trees of Summergold are moderately vigorous, productive, and self-fertile. No split pits were observed during 3 years of evaluation. The incidence of bacterial leaf spot was light to medium and resulted in 15 percent defoliation. The incidence of bacterial fruit spot was slight. The fruit is considered above average for canning, freezing, and pickling. Its chilling requirement is about 750 hours below 45°F.

*All Red Elberta* (limb mutation of Elberta in Joe Bray orchard, Bedford, Kentucky) was introduced in 1940. Average ripening date of All Red Elberta is July 14. The large, freestone fruit is oval with a slightly prominent tip and has medium pubescence. The fruit has a yellow streak at the suture and 80 percent of the surface is covered with a dull red blush. The flesh is medium yellow with red pigmentation near the pit, firm, melting, fine textured, and of fair to good quality. Trees of All Red Elberta are self-fertile, moderately vigorous, and productive. Split pits averaged 10 percent during the test period. The incidence of bacterial leaf spot was medium to high, resulting in 50 percent defoliation. All Red Elberta had a high incidence of small lesions from bacterial fruit spot infection; however, lesions did not detract from the fruit appearance. Processing characteristics have not been determined. All Red Elberta can be used for late season local markets but inconsistent yields make it undesirable for large scale commercial production. It has a chilling requirement of 750 hours below 45°F.

*Dixiland* [F.V. 5-56 (Halehaven selfed) x Dixigem] was introduced in 1962 by the USDA Horticulture Field Station, Fort Valley, Georgia. Average ripening date for Dixiland is July 19. The large, freestone fruit is oval with a non-prominent tip and has medium pubescence. Fruit of Dixiland are attractive with a bright yellow undercolor and a deep red overcolor blushed and splashed over 70 percent of the surface. The flesh is yellow with red pigmentation near the pit, firm, melting, slightly acid, and of good quality. Trees are vigorous, medium to highly productive, and self-fertile. Split pits averaged 2 percent during the test period. The incidence of bacterial leaf spot was light on Dixiland and resulted in 5 percent defoliation. The incidence of bacterial fruit spot was slight. Fruit have average canning quality. Its chilling requirement is about 750 hours below 45°F.

*Redskin* (J.H. Hale x Elberta) was introduced in 1944 by the Maryland Agricultural Experiment Station, College Park, Maryland. Average ripening date for Redskin is July 22. The medium to large, freestone fruit are round with a prominent suture and have light pubescence. Fruit have a yellow undercolor with a bright red overcolor blushed and striped over 60 percent of the surface. The flesh is yellow with red pigmentation near the pit, firm, melting, non-browning, and of

good quality. Trees of Redskin are moderately productive, vigorous, and self-fertile. Split pits averaged 2 percent during the test period. The incidence of bacterial leaf spot was moderate on Redskin and resulted in 20 percent defoliation. The incidence of bacterial fruit spot was light to moderate with small lesions. Fruits are considered below average for canning but have average freezing quality. This variety also has good shipping and keeping quality. It has a chilling requirement of 750 hours below 45° F.

### NECTARINE VARIETIES

Sixteen varieties of nectarines were evaluated in this planting, tables 10-12. All varieties were planted in 1979, except Summer Beaut and Crimson Gold were planted in 1980 and 1981, respectively.

Yields were affected in years of insufficient chilling as in 1984, table 8. From a yield standpoint, the most promising varieties for the Wiregrass area were Armking, Snow Queen, Crimson Gold, Stark Earli-Blaze, Stark Red Gold, and Red King. Fruit size, skin color, and fruit quality rating of these varieties were good and did not vary greatly among varieties, table 11. Arm King is a clingstone and Red King is a freestone variety, whereas the other promising varieties are semi-freestone varieties. All the promising varieties have yellow flesh except Snow Queen, which has white flesh. All the promising varieties have some split pit problems except Stark Red Gold. Two of the most promising varieties, Arm King and Crimson Gold, had an average of 25 percent split pits over the years tested.

All the varieties tested were evaluated for bacterial leaf and fruit spot in 1983 and 1984, Table 12. Bacterial leaf and fruit spot was not a severe problem in 1983. Only Snow Queen and Arm King had a medium to high incidence of leaf spot. None of the varieties had any infection of bacterial fruit spot. However, in 1984, bacterial leaf and fruit spot were severe. There were no large bacterial fruit spots or fruit cracking associated with the incidence of fruit spot. The spots resulting from bacterial fruit spot infection were small and relatively inconspicuous. Snow Queen had the greatest amount of infection. The infection encountered was not severe enough to affect home use or on-farm sales but could affect commercial shipment of fruit of Snow Queen and Red King varieties.

TABLE 10. RIPENING DATE AND YIELD OF NECTARINE VARIETIES AT THE WIREGRASS SUBSTATION, 1981-84

Variety	1981		1982		1983		1984		4-year av. yield /tree
	Ripening date	Yield /tree	Ripening date	Yield /tree	Ripening date	Yield /tree	Ripening date	Yield /tree	
		<i>Lb.</i>		<i>Lb.</i>		<i>Lb.</i>		<i>Lb.</i>	<i>Lb.</i>
Arm King .....	5-21	78.6	5-17	163.0	6-06	92.1	5-28	88.4	105.5
Pocahontas .....	6-01	6.1	6-03	12.7	6-20	105.4	—	—	31.1
24-306 .....	6-01	9.7	5-27	11.2	6-13	98.5	6-04	22.4	35.5
Snow Queen .....	6-08	82.8	6-03	136.8	6-20	121.4	6-07	55.0	99.0
Crimson Gold .....	—	—	—	—	6-23	45.2	6-07	55.1	69.9
Stark Earli Blaze .....	6-08	14.9	6-07	65.3	6-27	120.0	6-18	68.1	67.1
Sunlite .....	6-11	70.5	6-07	64.8	6-27	50.4	6-11	33.0	54.7
Summer Beaut .....	—	—	6-17	10.3	6-30	33.1	7-02	57.2	33.6
Stark Sunglo .....	7-06	36.4	6-28	26.5	7-18	30.7	7-12	35.9	32.4
Columbia .....	7-13	28.8	7-12	96.0	7-25	64.9	7-12	25.4	53.8
Fantasia .....	7-13	16.0	—	—	7-21	36.1	—	—	13.0
Flavortop .....	7-13	24.7	—	—	7-25	64.8	7-05	30.2	29.9
Stark Red Gold .....	7-13	12.6	7-12	97.6	7-18	128.3	7-23	25.7	66.1
H-White Nectarine .....	7-16	22.9	7-08	45.3	7-28	22.9	7-23	12.1	25.8
Red Chief .....	7-16	24.6	—	—	7-28	15.3	—	—	10.0
Red King .....	7-20	26.8	7-08	84.5	7-21	92.7	7-12	41.8	61.5



TABLE 11. FOUR-YEAR AVERAGE OF FRUIT EVALUATION OF NECTARINE VARIETIES AT THE WIREGRASS SUBSTATION, 1981-84

Variety	Fruit size, in.	Pubescence	Percent red color	Flesh firmness	Stone-freeness	Dessert quality	Flesh color	Percent split pits
Arm King .....	2.21	1.0	8.0	7.2	1.0	3.6	Y <sup>1</sup>	25.0
Pocahontas .....	1.81	1.0	9.3	5.0	1.0	2.8	Y	0.0
24-306 .....	2.19	1.0	8.6	7.1	1.0	3.0	Y	13.3
Snow Queen .....	2.25	1.0	9.6	6.8	5.1	3.2	W <sup>2</sup>	8.3
Stark Earli Blaze .....	2.31	1.0	9.7	7.9	4.6	2.8	Y	10.0
Sunlite .....	2.21	1.0	7.9	7.7	9.2	3.4	W	5.0
Summer Beaut .....	2.40	1.0	10.0	8.0	10.0	3.3	Y	20.0
Crimson Gold .....	2.30	1.0	10.0	6.5	5.5	3.0	Y	25.0
Stark Sunglo .....	2.38	1.0	9.2	7.6	10.0	3.2	Y	.0
Columbia .....	2.19	1.0	7.6	7.2	10.0	3.5	Y	.0
Fantasia .....	2.14	1.0	8.0	7.5	10.0	3.5	Y	.0
Flavortop .....	2.15	1.0	9.0	7.0	10.0	3.3	Y	.0
Stark Red Gold .....	2.54	1.0	9.4	8.2	10.0	3.1	Y	.0
H-White Nectarine .....	2.07	1.0	6.1	6.6	10.0	3.6	W	.0
Red Chief .....	1.99	1.0	5.3	5.7	10.0	3.3	W	.0
Red King .....	2.44	1.0	8.4	7.7	10.0	3.4	Y	10.0

<sup>1</sup>Yellow.<sup>2</sup>White.

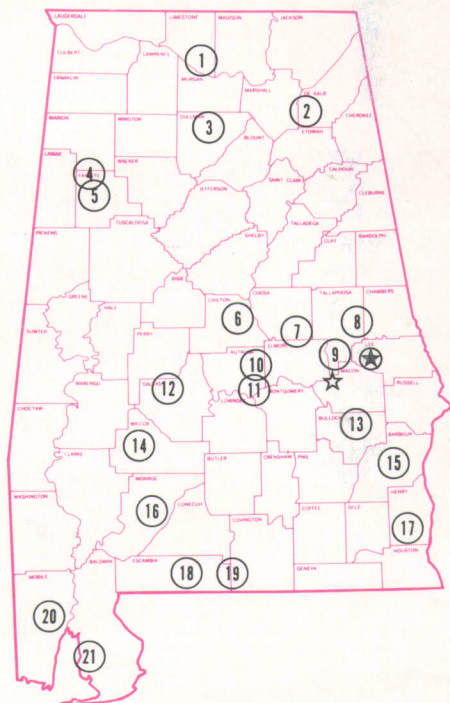
TABLE 12. BACTERIAL LEAF SPOT AND BACTERIAL FRUIT SPOT RATING FOR NECTARINE VARIETIES AT THE WIREGRASS SUBSTATION, 1983-84

Variety	1983		1984	
	Bacterial leaf spot severity	Bacterial fruit spot severity	Bacterial leaf spot severity	Bacterial fruit spot severity
Arm King .....	8	No damage to fruit	3	2
Pocahontas .....	0		0	0
24-306 .....	2		6	7
Snow Queen .....	9		9	8
Stark Earli Blaze .....	0		7	5
Sunlite .....	0		3	5
Summer Beaut .....	3		0	1
Crimson Gold .....	0		2	4
Stark Sunglo .....	2		4	3
Columbia .....	3		3	6
Fantasia .....	0		0	0
Flavortop .....	0		6	3
Stark Red Gold .....	0		6	5
H-White Nectarine ....	0		4	1
Red Chief .....	0		0	0
Red King .....	3		4	7



## 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

- ★ Main 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. Plant Breeding Unit, Tallassee.
10. Forestry Unit, Autauga County.
11. Prattville Experiment Field, Prattville.
12. Black Belt Substation, Marion Junction.
13. The Turnipseed-Ikenberry Place, Union Springs.
14. Lower Coastal Plain Substation, Camden.
15. Forestry Unit, Barbour County.
16. Monroeville Experiment Field, Monroeville.
17. Wiregrass Substation, Headland.
18. Brewton Experiment Field, Brewton.
19. Solon Dixon Forestry Education Center,  
Covington and Escambia counties.
20. Ornamental Horticulture Substation, Spring Hill.
21. Gulf Coast Substation, Fairhope.