Performance of Peach and Nectarine Varieties in the Wiregrass Area of Alabama



Circular 244 June 1979 Agricultural Experiment Station Auburn University R. Dennis Rouse, Director Auburn, Alabama

SUMMARY

Several peach varieties performed satisfactorily in tests at the Wiregrass Substation, Headland. Those best adapted for commercial production in that area were Springcrest, Springold, Maygold, Sentinel, LaGold, Keystone, Winblo, and Redskin. None of the nectarine varieties evaluated was suitable for commercial production. Lexington, Pocahontas, and Caliver are nectarine varieties with some potential for home use.

> Information contained herein is available to all persons regardless of race, color, or national origin.

FIRST PRINTING 4M, JUNE 1979

Performance of Peach and Nectarine Varieties in the Wiregrass Area of Alabama

W. A. DOZIER, JR., J. G. STARLING, H. W. IVEY, and O. N. FARRIOR*

P_{EACHES AND NECTARINES are potentially valuable crops for the Wiregrass Area of Alabama. This region has the natural advantage of being free of spring frost in most years, a time when most peach producing areas are subject to frost damage during or just after bloom. The potential for production of peaches for both fresh market and processing is unlimited in this area of the State if the proper varieties are grown. Varieties should be chosen on the basis of their intended use and performance in this area.}

DESCRIPTION OF PROJECT

A variety evaluation planting was established at the Wiregrass Substation, Headland, in the spring of 1973 to identify varieties suited to the area. The planting included 26 varieties of peaches and 6 varieties of nectarines. The peach varieties were planted in six groups and the nectarines in two groups according to ripening dates. Three trees of each variety were planted in a randomized complete block design in each ripening group. All varieties planted were on Lovell rootstock. Tree spacing was 20 by 20 feet.

Prior to planting lime, phosphorous, and potassium were broadcast and incorporated into the soil according to soil test recommendation. The nutritional program in subsequent years also followed soil test recommendations, with adjustments made in nitrogen application based on vegetative growth. For nematode control, Dasanit was broadcast and double disked into the top 6 inches of soil prior to planting at

^{*}Respectively, Associate Professor, Department of Horticulture, and Superintendent, Associate Superintendent, and Research Associate, Wiregrass Substation.

the rate of 66.6 pounds of 15 percent granules per acre. Recommended practices were followed for insect and disease control. Paraquat and simazine were used for weed control in the rows, and middles were mowed. Fruit on all varieties were hand thinned in 1976, 1977, and 1978. Dates of full bloom and first harvest were recorded for each variety. The rating systems used in all tables are as follows: skin color, fruit firmness, and stone freeness—0 = poor, 10 = excellent; for flesh color —y = yellow, w = white; for dessert quality—1, 2 = acid, 3, 4 = sub-acid, 5, 6 = astringent. Fruit size was obtained by measuring 20 representative fruit of each variety at each harvest date. Yield data presented are the average for three trees of each variety.

Ratings of damage from bacterial leaf spot were estimated, using the following rating system:

Rating, number-class	Leaves with bacterial spot, pct.	Defoliation, pct.
one	. none	none
ace	. 0-5	none
ight	. 6-20	0-5
oderate	. 21-50	6-15
evere	. 51-80	16-35
ery severe	. 81-100	36-100
	Rating, number-class	Rating, number-classLeaves with bacterial spot, pct.onenoneace0-5ight6-20ooderate21-50evere51-80ery severe81-100

Incidence of bacterial fruit spot was rated as none, light, moderate, or severe.

RESULTS

The orchard was set in March 1973, and all trees grew vigorously the first season. In the spring of 1974 and 1975, some varieties did not leaf out and bloom until May and June due to insufficient chilling during the dormant season, table 1. In each season, once bud break occurred, all varieties grew vigorously. A few scattered fruit were produced in 1974, but yield was not sufficient for yield data to be recorded.

All varieties bloomed heavily in the spring of 1975; however, fruit set and production varied from no crop to only a light crop, table 2. Good crops were produced in 1976, 1977, and 1978, tables 3, 4, and 5, and all varieties required thinning.

Peach Variety Performance

Severe incidence of bacterial leaf spot and bacterial fruit spot occurred in 1976 and 1977, tables 3 and 4. Many varieties

	Buc	d break	
Variety	1974	1975	
Peach			
Springold	normal	normal	
Springcrest	normal	normal	
Springbrite	normal	normal	
CamdenI	poor (blind wood-	normal	
	vigorous new growth		
Candor 1	normal	poor-delayed	
Maygold	normal	normal	
RedcapI	poor (blind wood)		
Rubired	poor (blind wood)	poor-delayed	
Coronet	very poor (blind wood)	poor-delayed	
Sentinel	normal	poor-delayed	
Whynot	normal	normal	
Suwannee	normal	normal	
LaGold	normal	normal	
Keystone	normal	normal	
Washington	normal	normal	
Sunhigh	poor (blind wood)	normal	
Southland	normal	normal	
McNelly	very poor	normal	
Winblo	poor (blind wood)	normal	
Milan	normal	normal	
Mountaingold	ery poor	poor-delayed	
Madison	very poor	poor-delayed	
Piedmontgold	very poor	poor-delayed	
Suncling	very poor	poor-delayed	
Redskin	poor (blind wood)	poor-delayed	
Monroe	poor (blind wood)	poor-delayed	
Nectarine	9		
Pocahontas	normal	normal	
Cherokee	normal	normal	
Nectared-5	poor-delayed	normal	
Nectared-4	ormal	normal	
Lexington	poor (blind wood)	normal	
Caliver	normal	normal	

TABLE 1. BUD BREAK IN THE SPRING OF 1974 AND 1975, FOLLOWING WINTERS OF INSUFFICIENT CHILLING

that performed well in other respects were severely defoliated by bacterial leaf spot. In some cases the fruit was severely damaged and rendered unsalable by bacterial fruit spot.

Varieties that were unaffected or only slightly affected by bacterial leaf spot in both 1976 or 1977 were Redcap, Rubired, Sentinel, Whynot, LaGold, Keystone, Winblo, and Redskin. Bacterial leaf spot was severe on Springold, Springcrest, Springbrite, Candor, Coronet, Suwannee, Washington, Sunhigh, Southland, McNelley, Milan, Mountaingold, Madison, Piedmontgold, and Suncling. Defoliation due to bacterial leaf spot did not occur until the first week in June in either season. Varieties that were severely affected by bacterial fruit spot were Suwannee, Washington, Sunhigh, Southland, Mi-

	Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Yield, lb./tree	Flesh color	Bacterial leaf spot severity	Degree of bacterial fruit spot
[6]	Springcrest	$\begin{array}{c} 3-12\\ 3-7\\ 3-11\\ 3-24\\ 3-10\\ 3-14\\ 3-13\\ 3-14\\ 3-13\\ 3-11\\ 3-12\\ 3-8\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-12\\ 3-13\\ 3-20\\ 3-16\\ 3-13\\ 3-20\\ 3-16\\ 3-13\\ 3-22\\ 3-22\\ 3-22\\ 3-12\\ 3-11\\ \end{array}$	5-9 5-19 5-19 5-27 5-27 5-27 6-3 no fruit 6-9 6-16 6-16 6-16 6-20 no fruit 6-23 no fruit 7-9 7-9 no fruit no fruit 7-9 no fruit no fruit	$\begin{array}{c} 2.25\\ 2.00\\ 2.00\\ 2.00\\ 1.75\\ 1.80\\ 2.00\\ 1.75\\ 1.80\\ 2.00\\ 1.75\\ 2.00\\ 1.75\\ 2.00\\ 1.75\\ 2.00\\ 1.75\\ 1.80\\ 1.80\\ 1.80\\ 1.80\\\\ 2.25\\\\ 2.25\\\\ 2.25\\\\\\ 2.25\\\\\\\\ 2.25\\\\\\\\\\ 2.25\\\\\\\\\\\\\\\\\\\\ -$	8 8 7 4 6 6 7 2 6 6 9 7 6 9 7 6 9 7 6 9 7 8	7 7 7 7 7 7 6 8 8 7 7 7 7 7 7 7 7 7 7 7	$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 3\\ 8\\ -3\\ 9\\ 10\\ 9\\ 4\\ 10\\ -9\\ 8\\ 1\\ -\\ 10\\ -\\$	3444443 3333333 3 323 1 3	$\begin{array}{c} 4.6\\ 8.4\\ 5.5\\7\\ 3.2\\ 3.2\\ 3.1\\5\\ 4.9\\ 1.3\\ 6.5\\1\\ 1.1\\8\\3\\ 4.6\\5\\\\ 8.6\\ -\\ 8.6\\ -\end{array}$	Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	no damage in 1975	no damage in 1975

TABLE 2. 1975 RATINGS OF PEACH PERFORMANCE, WIREGRASS SUBSTATION

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Yield, lb./tree	Flesh color	Bacterial leaf spot severity	Degree of bacterial fruit spot
Redskin 3-5 6-28 2.50 8 7 10 3 69.6 Y 2 0	[7]	Springold	$\begin{array}{c} 3 & 1 \\ 3 & 1 \\ 3 & 1 \\ 3 & 1 \\ 3 & 5 \\ 3 & 5 \\ 3 & 5 \\ 3 & 21 \\ 3 & 8 \\ 3 & 5 \\ 3 & 1 $	$\begin{array}{c} 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 5\\ 5. \ 21\\ 5. \ 21\\ 5. \ 21\\ 5. \ 21\\ 5. \ 21\\ 5. \ 27\\ 6. \ 3\\ 6. \ 3\\ 6. \ 3\\ 6. \ 3\\ 6. \ 3\\ 6. \ 8\\ 6. \ 11\\ 6. \ 11\\ 6. \ 14\\ 6. \ 18\\ 6. \ 21\\ 6. \ 21\\ 6. \ 25\\ 6. \ 28\end{array}$	$\begin{array}{c} 2.00\\ 2.00\\ 2.25\\ 2.09\\ 2.65\\ 2.75\\ 2.75\\ 2.65\\ 2.50\\ 2.50\\ 2.50\\ 2.50\\ 2.50\\ 2.60\\ 2.80\\ 2.60\\ 2.40\\ 2.40\\ 2.40\\ 2.08\\ 2.60\\ 2.75\\ 2.50\\ \end{array}$	877977668886776666775646748	6 6 8 5 9 9 8 7 9 7 9 6 4 6 6 7 7 9 6 5 8 8 7 9 7 9 7 9 7 9 6 4 6 6 7 7 9 6 5 8 7 9 7 9 7 9 6 4 6 6 7 7 9 9 8 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7	$ \begin{array}{c} 1\\ 1\\ 2\\ 1\\ 3\\ 1\\ 2\\ 3\\ 4\\ 7\\ 2\\ 9\\ 9\\ 9\\ 10\\ 8\\ 8\\ 2\\ 8\\ 8\\ 2\\ 1\\ 10\\ 2\\ 1\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\$	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 6 4 3 3 3 3 4 3 3 3 3	$\begin{array}{c} 71.0\\ 78.9\\ 84.0\\ 57.5\\ 48.2\\ 60.9\\ 48.5\\ 11.9\\ 37.2\\ 133.8\\ 42.9\\ 24.5\\ 137.2\\ 97.9\\ 12.5\\ 72.3\\ 95.4\\ 34.6\\ 81.2\\ 51.2\\ 61.7\\ 54.5\\ 20.7\\ 13.8\\ 69.6 \end{array}$	Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	6 6 6 6 6 4 6 4 3 2 5 2 3 6 6 6 6 6 6 5 6 4 2 6 5 6 4 2 6 5 6 4 2 6 6 6 6 4 2 6 6 6 4 8 2 5 2 3 6 6 6 6 6 4 8 2 5 2 5 2 5 2 5 6 6 6 6 6 6 6 6 6 6 6 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TABLE 3. 1976 RATINGS OF PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Yield, lb./tree	Flesh color	Bacterial leaf spot severity	Degree of bacterial fruit spot
Springold	3-1	5-9	2.25	8	8	1	2	53.9	Y	4	Ļ
Springcrest	3-5	5-9	2.25	6	8	Ļ	2	60.2	Y	4	Ľ
Camden	3-11	5.9	2.00	9	ŏ	1	3	76.7	ľ V	2	0
Springbrite	3-1	5-16	2.25	ğ		2	3	43.2	Y	4	L
Candor	3-6	5-16	2.00	5	6	2	3	89.2	Y	4	0
Maygold	3-1	5-24	1.75	4	5	2	3	68.6	Y V	3	0
Redcap	2-28	5-24	2.25	5	1	1	3	69.5	Y V	2	0
Coronet	3-3	5-31	2.50	ğ	6	3	3	61.5	Y	2	0
	3-11	5-31	2.25	Ö	2	3	3	54.1	Y V	ļ	0
	3-4	6- 6 6- 6	2.25	ు ం	5	10	3	91.5	Y V	I 1	0
Sentinel	3-9	6- 6 C 12	2.25	8	6	8	3	134.2	Y	1	0
Keystone	3-8 0-0	0-13	2.75		5	10	3	44.4	I V	1	U O
Washington	3-6	0-13	2.50	õ	(9	3	49.1	Y V	3	0
McNelley	3-6	6-13	2.75	5	6	ð	3	25.6	Y	2	0
Whynot	3-1	0-14	2.80	4	5	3	3	95.0	Y V	2	U O
Suwannee	3-7	6-14	2.25	6	6	10	3	21.7	Y V	6	S
Sunhigh	3-8	6-14	2.25	4	6	9	4	57.0	Y	6	S
Winblow	3-11	6-21	2.25	5	7	9	3	150.0	Y	2	0
Mountaingold	3-14	6-21	2.50	2	6	1	3	95.0	Y	6	S
Piedmontgold	3-14	6-27	2.00	2	9	2	3	99.5	Y V	6	S.
Southland	3-8	6-27	2.50	7	6	8	3	64.0	Ŷ	2	0
Milan	3-7	6-27	2.00	6	5	8	3	49.2	Y	6	S
Suncling	3-11	7-1	2.25	1	10	1	3	74.9	Ŷ	6	M
Madison	3-11	7-1	2.25	4	7	.9	3	89.5	Y V	2	U U
Kedskin	3-11	7-5	2.25	1	1	10	3	72.3	Ŷ	1	-0
Monroe	3-11	7-12	2.25	3	8	10	3	67.5	Ŷ	3	0

TABLE 4. 1977 RATINGS OF PEACH PERFORMANCE, WIREGRASS SUBSTATION

[8]

lan, Suncling, Madison, Mountaingold, and Piedmontgold. In 1976, the early ripening varieties were harvested before any bacterial fruit spot was evident in the orchard. Coronet and Sentinel, harvested on May 27, were the first varieties that exhibited bacterial fruit spot damage. In 1977, Springold, Springcrest, and Springbrite, which were some of the first varieties to be harvested, had a light incidence of bacterial fruit spot. Fruit was generally harvested later than the early stage of ripeness suitable for commercial shipment. Therefore, fruit firmness data are lower than normally expected for most varieties.

Varieties That Performed Best

The following peach varieties performed best for commercial production in Wiregrass Substation tests. The average performance of each is presented in table 6.

Springcrest, (Fireglow x Hiley) x Fireglow x Spring Time, was tested as F. V. 9-170 and introduced in 1969 by the USDA Horticultural Field Station, Fort Valley, Georgia. Springcrest ripens about 51 days before Elberta. The fruit is round with non-prominent suture and tip, medium size, clingstone, and has a short medium-heavy pubescence. The attractive fruit has a dark red blush on 90 percent of the surface, with a bright yellow undercolor. The flesh is yellow, firm but melting, fine in texture, subacid, and medium in quality for an early peach. Trees of Springcrest are vigorous, self-fertile, and medium in productivity. The variety has a chilling requirement of 650 hours below 45° F. Springcrest is a highly colored, good quality, large sized peach, and has less split pits than most varieties in its season.

Springold, 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. Springold ripens about 55 days before Elberta. The fruit is ovate with a prominent suture and slight tip, small, clingstone, and has medium pubescence. About 80 percent of the fruit surface is covered with a bright, attractive, red blush over a yellow ground color. The flesh is yellow, firm but melting, medium in texture, and good in flavor for an early peach. Trees of Springold are selffertile, vigorous, productive, and moderately resistant to bacterial leaf spot. Chilling requirement is about 850 hours below 45° F. **Maygold**, Sunhigh x Southland, was tested as F. V. 132-12 and was introduced by the USDA Field Station, Fort Valley, Georgia, in 1953. Maygold ripens about 39 days before Elberta. The fruit has a round-ovate shape, non-prominent suture and tip, very light pubescence, and is medium in size and a clingstone. About 80 percent of the fruit surface is covered with a dark red overcolor and has a fair yellow undercolor. The flesh is yellow, of good quality, firm but melting, and medium in texture. Trees of Maygold are vigorous, self-fertile, and highly productive. The fruit is below average for the season for canning, pickling, and freezing. Its chilling requirement is 650 hours below 45° F.

Sentinel, F. V. 5-56 x Dixigem, was formerly tested as F. V. 173-47. It was introduced in 1966 by the USDA Horticultural Field Station, Fort Valley, Georgia. Sentinel ripens about 34 days before Elberta, producing fruit that is round, medium sized, freestone when fully matured, and medium in pubescence. At maturity, about 75 percent of the surface is covered with a red blush over a yellow ground color. The flesh is yellow, firm but melting, and of good flavor and texture. Trees of Sentinel are vigorous, productive, and self-fertile, with good resistance to bacterial spot disease. Its chilling requirement is about 850 hours below 45° F.

LaGold, open pollinated Redhaven seedling, was tested as L. 3-16-16 and introduced in 1967 by the Louisiana Agricultural Experiment Station, Calhoun, Louisiana. LaGold ripens about 25 days before Elberta. The fruit is oval in shape, with non-prominent suture and tip, medium-to-medium-large size, freestone, and has medium pubescence. The fruit is attractive and has a yellow undercolor with a red blush covering 25 percent of the fruit surface. The flesh is yellow with a small amount of red pigment near the pit, firm, melting, fine textured, and of good quality. Trees of LaGold are vigorous, productive, self fertile, and resistant to bacterial leaf spot. It has a chilling requirement of 700-750 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. Keystone ripens about 23 days before Elberta. Its fruit is round with non-prominent suture and tip, self fertile, medium-to-large, freestone, and has very light pubescence. Keystone's attractive fruit have a bright yellow undercolor and a bright red blush and stripe overcolor covering 60 percent of the surface. The flesh is of good quality,

	Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Yield, lb./tree	Flesh color	Bacterial leaf spot severity	Degree of bacterial fruit spot
	Springold	3-24	5-23	1.83	8	7	1	2	102.3	Y	ζφ.	- 8/
	Springcrest	3-24	5-23	1.92	6	7	1	2	99.8	Y	67	61
	Camden	3-24	5 - 25	1.72	9	8	1	3	110.0	Y		1
	Springbrite	3-24	5-25	1.58	7	8	2	3	85.4	Y	ц.	
	Candor	3-24	5-30	1.79	5	7	4	3	80.5	Y	ŝe	e
	Redcap	3-26	6-9	2.27	7	8	1	3	66.0	Y	lag	lag
	Rubired	3-26	6-9	2.26	7	8	3	3.	66.4	Y	Ę	ur ur
	Maygold	3-22	6-16	2.14	7	8	1	3	110.1	Y	qĩ	q
	Coronet	3-24	6-20	2.04	8	8	. 3	3	113.8	Y	IO	00
	Sentinel	3-26	6-20	2.00	6	7	7	3	168.6	Y	ч	Т
-	Whynot	3-26	6-27	2.15	9	8	2	3	63.3	Y		
-	LaGold	3-24	6-27	2.13	3	5	10	3	192.4	Y		
	Keystone	3-24	6-30	2.13	6	7	10	3	99.1	Y		
	Washington	3 - 25	6-30	2.16	7	8	9	3	114.9	Y		
	Suwannee	3-22	7-5	2.17	7	7	10	3	63.7	Y		
	Sunhigh	3 - 24	7-5	2.39	6	7	10	3	128.9	Y		
	Winblo	3-26	7-5	2.32	5	7	9	3	134.0	Y		
	McNelley	3 - 27	7-7	2.28	5	7	8	3	146.3	Y		
	Southland	3-24	7-10	2.28	6	7	10	3	41.5	Y		
	Piedmontgold	3-27	7-13	2.08	5	8	2	3	74.6	Y		
	Milan	3-24	7-13	2.03	8	7	10	3	70.5	Y		
	Mountaingold	3-26	7-13	2.05	5	7	1	3	137.4	Y		
	Suncling	3-27	7-17	1.91	2	8	1	3	70.4	Y		
	Madison	3 - 25	7-17	1.72	6	8	10	3	76.1	Y		
	Redskin	3-25	7-28	2.10	5	7	10	3	64.8	Y		
	Monroe	3-24	7-28	2.10	5	7	10	3	58.5	Ŷ		

TABLE 5. 1978 RATINGS OF PEACH VARIETY PERFORMANCE, WIREGRASS SUBSTATION

		Date	Date of	Fruit		Flash	C4	Desert	Average	El l	1976-77	average
	Variety	of full bloom	first harvest	size, in.	color	firmness	freeness	quality	yield, lb./tree	color	Bacterial leaf spot	Bacterial fruit spot
	Springcrest	3-11	5-12	2.06	7	7.0	1.0	2	79.6	Y	5.0	0-L
2	Springold	3-9	5 - 14	2.03	8	7.0	1.0	2	75.7	Y	5.0	0-L
	Maygold	3-10	5-30	2.13	6	6.8	1.3	3	79.9	Y	3.5	0
	Sentinel	3-13	6-6	2.33	7	7.3	7.5	3	145.5	Y	1.5	0
	LaGold	3-10	6-11	2.14	4	5.5	10.0	3	140.4	Y	2.0	0
	Keystone	3-11	6-17	2.38	6	6.5	10.0	3	80.5	Y	2.0	0-L
	Winblo	3-15	6-27	2.32	5	7.3	8.8	3	121.7	Y	2.0	0
	Redskin	3-13	7-9	2.27	6	7.3	10.0	3	68.9	Y	1.5	0

TABLE 6. AVERACE RATINGS OF THE BEST PERFORMING PEACH VARIETIES, WIREGRASS SUBSTATION

firm, melting, and yellow with red at pit. Although trees of the variety are vigorous, productivity varies from low to high. Keystone is a good canning and freezing variety, having flesh that is highly resistant to browning. It is less susceptible to bacterial leaf spot than Elberta. Chilling requirement of Keystone is 750 hours below 45° F.

Winblo, Redhaven x Dixiered, was introduced by the North Carolina Agricultural Experiment Station, Raleigh, North Carolina. Winblo ripens about 14 days before Elberta. The fruit is round, medium to large, and freestone. The flesh is yellow, fine flavored, high quality, moderately firm, and nonbrowning. Winblo has a yellow undercolor and a bright red blush over 70 percent of the fruit surface. The trees are vigorous, productive, and tolerant to bacterial leaf spot. Its chilling requirement is 800-850 hours below 45° F.

Redskin, J. H. Hale x Elberta, was introduced in 1944 by the Maryland Agricultural Experiment Station. Ripening date is 2-3 days before Elberta. The fruit is round with a prominent suture and light pubescence, attractive, yellow fleshed, of good color and quality, freestone, firm, and of large size when properly thinned. In some years a rough suture will develop. The trees are self-fertile, vigorous, and productive. Blossoms tend to set fruit each year. Redskin is moderately resistant to bacterial leaf spot. It has a chilling requirement of about 750 hours below 45° F.

Nectarine Variety Performance

None of the nectarine varieties evaluated was suitable for commercial production, table 7. Cherokee, Nectared-4, and Nectared-5 were defoliated by bacterial leaf spot. Their fruit were severely damaged by bacterial fruit spot and also split badly. Lexington, Pocahontas, and Caliver would probably be satisfactory for home use. The fruit of these three nectarine varieties were small. Lexington was the highest producing nectarine variety. It set large crops and required heavy thinning. In addition to being small, fruit of Lexington are soft and white fleshed. Pocahontas and Caliver are both yellow fleshed varieties and productive. Average performance of the three best nectarines is given in table 8.

Since this evaluation planting was established, additional varieties having potential for this area have been released. The newer varieties will be evaluated at the Wiregrass Substation.

	Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Yield, lb./tree	Flesh color	Bacterial leaf spot severity	Degree of bacterial fruit spot
	1975PocahontasCherokeeNectared-5Nectared-4LexingtonCaliver	3-12 3-13 3-13 3-16 3-13 3-13	no fruit no fruit 6-20 no fruit 6-20 6-23	 1.68 1.75	 9	$\frac{-}{6}$ $\frac{7}{9}$	$\frac{-}{10}$ $\frac{10}{10}$ 10	$\frac{-}{3}$ $\frac{-}{3}$ $\frac{-}{2}$	 2.9 .8 .8	$\frac{-}{\frac{Y}{W}}$	0 0 0 0 0 0	0 0 0 0 0 0
[14]	1976 Pocahontas Cherokee Nectared-5 Nectared-4 Lexington Caliver	3- 3 3- 7 3- 5 3- 7 3- 3 3- 1	5-21 5-31 6-3 6-8 6-8 6-14	$1.75 \\ 2.25 \\ 2.30 \\ 2.30 \\ 1.95 \\ 1.90$	9 9 8 9 9	8 7 7 8 7	10 8 10 10 10 10	3 3 3 3 3 3 3	$18.5 \\ 4.3 \\ 49.0 \\ 11.1 \\ 78.1 \\ 81.7$	Y Y Y Y W Y	5 6 6 4 6	L S ¹ S M 0 0
	1977Nectared-4CaliverPocahontasCherokeeNectared-5Lexington	3-11 3-11 3- 9 3-11 3- 2 3-11	5-21 5-21 5-31 6-6 6-13 6-13	$2.50 \\ 1.75 \\ 1.75 \\ 2.25 \\ 2.25 \\ 1.75 $	9 7 9 8 8	7 7 6 7 8	10 10 10 10 10 10	3 3 3 3 3 3 3	53.3 34.6 91.6 67.9 85.5 114.0	Y Y Y Y W	$ \begin{array}{c} 3 \\ 1 \\ 1 \\ 6 \\ 3 \\ 1 \end{array} $	L 0 0 S L 0
	1978 Pocahontas Cherokee Lexington Nectared-5 Nectared-4 Caliver	3-25 3-27 3-26 3-24 3-26 3-24	6-16 6-23 6-30 7- 7 7-10 7-13	$1.67 \\ 1.98 \\ 1.80 \\ 1.61 \\ 1.96 \\ 1.61 \\ $	8 9 8 9 8	7 7 8 7 7 7	10 8 10 10 10 10	3 3 3 3 3 3 3 3	$145.3 \\ 157.3 \\ 309.8 \\ 127.4 \\ 51.7 \\ 111.6$	Y Y W Y Y Y	0 0 0 0 0 0	0 0 0 0 0 0

TABLE 7. RATINGS OF N	ECTARINE VARIETY PERFORM	ANCE, WIREGRASS SUBSTAT	ion, 1975-78	

¹All fruit split.

[15]	Variety	Date of full bloom	Date of first harvest	Fruit size, in.	Skin color	Flesh firmness	Stone freeness	Dessert quality	Average yield, lb./tree	Flesh ⁻ color	1976-77 Bacterial leaf spot	average Bacterial fruit spot
	Pocahontas Lexington Caliver	3-12 3-13 3-12	6- 3 6-18 6-18	$1.72 \\ 1.83 \\ 1.75$	8 8 8	7.3 8.0 7.5	$10.0 \\ 10.0 \\ 10.0$	3 3 3	85.1 167.3 76.0	Y W Y	$3.0 \\ 2.5 \\ 3.5$	0-L 0 0

TABLE 8. AVERAGE RATINGS OF THE BEST PERFORMING NECTARINE VARIETIES, WIREGRASS SUBSTATION

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. Foundation Seed Stocks Farm, Thorsby.
- 7. Chilton Area Horticulture Substation, Clanton.
- 8. Forestry Unit, Coosa County.
- 9. Piedmont Substation, Camp Hill.
- 10. Plant Breeding Unit, Tallassee.
- 11. Forestry Unit, Autauga County.
- 12. Prattville Experiment Field, Prattville.
- 13. Black Belt Substation, Marion Junction.
- 14. The Turnipseed-Ikenberry Place, Union Springs.
- 15. Lower Coastal Plain Substation, Camden.
- 16. Forestry Unit, Barbour County.
- 17. Monroeville Experiment Field, Monroeville.
- 18. Wiregrass Substation, Headland.
- 19. Brewton Experiment Field, Brewton.
- 20. Solon Dixon Forestry Education Center, Covington and Escambia counties.
- 21. Ornamental Horticulture Field Station, Spring Hill.
- 22. Gulf Coast Substation, Fairhope.