



PEACH VARIETIES *for* ALABAMA

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MANY CHANGES in Alabama peach varieties are taking place. Market demands and competition from other areas have caused growers to shift to varieties that ripen early and produce fruit that will satisfy the customer.

Alabama growers can cash in on high prices that usually prevail early in the season, but special consideration must be given to selecting varieties that ripen early and produce high quality fruit. White-fleshed varieties no longer meet the early season demand. Growers are rapidly changing to yellow-fleshed varieties. Time of ripening is equally important for getting premium prices. Since prices always drop when competing areas market their crops, it is important for Alabama growers to select varieties that ripen ahead of peaches of other areas.

Prior to 1920, the only peach varieties available were those resulting from chance seedlings found and introduced by growers and nurserymen. This gave peach growers little choice of varieties and made peach growing a risky business. Since 1920 there have been many new varieties developed by state and federal experiment stations and private breeders to meet specific market demands. Thorough testing of new varieties is necessary to determine their merits as compared with the old standard ones. This leaflet reports the variety testing program of the Agricultural Experiment Station of the Alabama Polytechnic Institute.

VARIETY SURVEY

A peach variety survey was conducted in Alabama in 1946 by the

AGRICULTURAL EXPERIMENT STATION
of the **ALABAMA POLYTECHNIC INSTITUTE**

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American Pomological Society in cooperation with the American Nurserymen's Association.¹ Results of this survey are given in Table 1.

TABLE 1. PEACH VARIETY SURVEY FOR ALABAMA (28 GROWERS), 1946

Variety	Have	Would plant	Would discard
Elberta	24	17	1
Belle of Georgia	21	11	1
Golden Jubilee	18	12	2
J. H. Hale	15	9	3
Carman	14	7	4
Early Rose	14	10	4
Hiley	13	11	2
Early Elberta	11	8	1
Early Hiley	11	9	2
Mayflower	10	4	5

It is pointed out that 6 of the 10 leading varieties in 1946 were white-fleshed, while the trend in consumption is toward yellow-fleshed peaches. Since the demand is for early-ripening, yellow-fleshed peaches, Alabama growers must discard the white-fleshed varieties formerly grown for the early market.

The variety situation based on the report of farmers in Chilton County, Alabama, February, 1951, changed considerably from 1946 to 1951 as given in Table 2.²

TABLE 2. BEARING PEACH TREES BY VARIETIES, CHILTON COUNTY, ALABAMA, 1951

Variety	Number of trees	Per cent of county total ¹
Elberta	140,970	37
Hiley	48,530	13
Halehaven	45,720	12
Fairs Beauty	41,910	11
Golden Jubilee	19,050	5
Erly-Red-Fre	19,950	5
Shipper's Late Red	12,240	4
Redhaven	7,620	2
Halegold	3,810	1
Dixired	3,810	1

¹ Other varieties amounting to less than 1 per cent of the total include Dixigem, Rio Oso Gem, Red Bird, Indian Cling, J. H. Hale, Early Rose, Southland, and Mayflower.

VARIETY RECOMMENDATIONS

Some 200 peach varieties and selections have been under test at the Experiment Station for the past 15 years. Most of the varieties have been tested at Auburn, and many of the newer ones have been tested at the Chilton Area and North Alabama horticulture substations. Most of the newer varieties tested proved superior to older ones of the same ripening period.

Recommended varieties for central and northern Alabama are given in Table 3. It will be noted that more than one variety is given for a specific ripening period. Since there is a difference in the cold weather requirements of different varieties, it is desirable to plant varieties with high and low chilling requirements as insurance against variable weather in Alabama.

No varieties ripening later than Elberta are generally recommended for planting in Alabama because of com-

TABLE 3. VARIETIES FOR COMMERCIAL AND HOME PLANTINGS IN CENTRAL AND NORTHERN ALABAMA

Variety	Weeks earlier than Elberta
Hiland	6½
Cardinal	6½
Dixired	6
Redcap	6
Coronet	5
Dixigem	4½
Redhaven	4
Triogem	3
Fairhaven	2½
Sunhigh	2
Southland	2
July Burbank Elberta	2
Halehaven	2
Loring	1½
Redskin	0
Elberta	--

¹ Bregger, John T. Peach variety survey. Presented at the Peach Workers Conference, Association of Southern Agricultural Workers, Biloxi, Miss., January 13-14, 1947.

² Glasscock, M. R. Report on peach varieties. Peach Conference, Clanton, Alabama, February 7, 1951.

TABLE 4. VARIETIES FOR THE SOUTHERN HALF OF ALABAMA

Variety	Weeks earlier than Elberta
Hiland	6½
Redcap, Maygold	6
Newday	3
July Elberta	2
Southland	2
Sunhigh	2
Loring	1½
Redskin	0

petition from other areas and excessive damage by disease and insects. Growers who have a good local market for late varieties, such as roadside stands, and who will follow a good spray program to control diseases and insects should plant a limited number of such varieties as Shipper's Late Red, Rio Oso Gem, and Afterglow.

There has been considerable interest in peach growing on a limited scale in the southern half of Alabama. Varieties requiring short periods of cold weather to break their dormancy are needed for this area. Varieties with low chilling requirements recommended for planting south of Montgomery are given in Table 4.

DESCRIPTION of VARIETIES

Afterglow is a late variety, ripening nearly a week after Elberta. Its fruit is large, freestone, and has firm, yellow flesh. It has a medium to light blush. Afterglow trees are moderately vigorous and productive, with fairly tender flower buds. Although usually not as well-colored as Rio Oso Gem, Afterglow is sometimes preferred to it because of greater tree vigor and slightly greater flowerbud hardness.

Cardinal (USDA FV-101) is very early, ripening about 6½ weeks before Elberta. This variety produces medium, round, clingstone fruit that has a bright red blush over a yellow ground color (under color). The flesh is yellow, firm but melting, of medium tex-

ture, and has a good flavor. The trees are productive, but only moderately vigorous. Blossoms are self-fertile and medium in size.

Coronet (USDA FV 126-79) is an early variety, ripening 2 or 3 days before Dixigem. Fruit is medium and ovate with very light pubescence. The surface has an attractive bright red blush over yellow ground color. Its yellow flesh is firm but melting and smooth-textured, but tends to cling at the pit when not fully ripe. Flavor is good but mild. Trees are vigorous and productive, and about as susceptible to bacterial spot as Elberta. Blossoms are small-petaled and self-fertile.

Dixigem is early, ripening 4 to 5 weeks before Elberta and about a week before Golden Jubilee. Fruits are medium-sized, light to medium red over about half the skin surface and have a bright yellow ground color. The flesh is yellow, usually free when ripe, firm and fine-textured. Dixigem is suggested as an early shipping variety and for local sale where an early yellow peach is needed.

Dixired is very early, ripening 5 to 6 weeks before Elberta. Fruits are medium-sized with bright red skin. Flesh is yellow, clingstone, medium firm and melting. Dixired looks promising for very early shipping or for local marketing where earliness is of prime importance and a clingstone variety is acceptable. Considerable acreage of this variety has been planted in the Southeast.

Elberta is a midseason variety, and by far the leading variety in the United States. Its fruits are large with red blush. Flesh is yellow, free, firm, and of fair to good quality. Elberta trees are productive, and its flower buds are tender to low temperature. Its popularity with growers is due to the large size, firmness, attractiveness, and shipping quality of its fruit, the vigor of the trees, and its suitability to many soil and climatic conditions. Although Elberta should still be considered the

principal commercial midseason variety, midseason varieties superior to it in quality, hardiness, and skin color are being planted in numerous orchards.

Fairhaven is an early midseason variety, ripening after Golden Jubilee and about 3 weeks before Elberta. A yellow, freestone peach, Fairhaven is good for freezing and canning, and for local marketing and commercial production.

Halehaven ripens in midseason, about 2 weeks before Elberta. The fruits are large and round, and skin color is sometimes too dull. Flesh is yellow, free, and fairly firm for the season. Flower buds are fairly hardy, and the trees are vigorous and productive. Fruit often sets heavy, making detailed thinning necessary. Although Halehaven lacks the shipping qualities of Elberta, it has been one of the most outstanding varieties introduced in recent years for commercial planting. It may well be used for local markets and home plantings, also.

Hiland (USDA FV 123-41) ripens 1 day earlier than Cardinal and 5 days ahead of Dixired. Fruit is clingstone, medium, and ovate, with very light pubescence; it is attractively colored with light red blush. Flesh is yellow, fairly firm, medium-textured and has good flavor. Trees are vigorous and productive. Blossoms are large-petaled and self-fertile.

July Elberta is a midseason variety, ripening about 2 weeks before Elberta. Fruits are large, round and free, with fairly firm yellow flesh. Trees are productive and have short chilling requirements. This is one of the best commercial varieties for its season at Auburn.

Loring is midseason, ripening 1 week before Elberta. Fruits are medium to large, very attractive, and freestone with yellow flesh. Loring has not been widely tested, but is very promising in Alabama.

Maygold (USDA FV 132-12) ripens 3 days ahead of Dixired. Its fruit is clingstone, medium and ovate, with

very light pubescence; it is attractively colored with light red blush over yellow ground color. Flesh is yellow, firm but melting, medium-textured and has good flavor. Trees are vigorous and productive, but subject to bacterial spot. Blossoms are small-petaled and self-fertile. Chilling requirement is low enough for extreme southern Alabama.

Newday is an early midseason variety, ripening about 3 weeks before Elberta. Fruits are medium to large, with an attractive red blush. Flesh is yellow and freestone, but lacks firmness for shipping. Plant for home use and local market.

Redcap (USDA FV 121-58) ripens 1 or 2 days ahead of Dixired. Fruit is clingstone, medium, round, and has light pubescence — similar to Dixired. The surface is covered with a bright, attractive red blush. Flesh is yellow, firm but melting, medium-textured and has good flavor. Trees are moderately vigorous and productive with low chilling requirements. Blossoms are small-petaled and self-fertile. Plant in place of Dixired in southern Alabama, and with Dixired in central Alabama to avoid prolonged dormancy.

Redhaven is early, ripening 4 to 5 weeks before Elberta. Fruits are small to medium and require early thinning to develop good size. Skin is bright red and attractive. Flesh is yellow and usually free when ripe. Redhaven peaches are excellent for canning and freezing. Flower buds are moderately hardy.

Redskin ripens in midseason, about the same time as Elberta. Its fruits are large and round, and the skin is an attractive, almost solid, bright red. Flesh is yellow, free and firm. It is a good variety for freezing and canning, and looks promising as a commercial variety to replace Elberta, particularly because of color and quality of the fruit.

Rio Oso Gem is late, ripening with Afterglow. It produces large fruit, with medium to bright blush. Flesh is yellow, free, of good quality, and firm.

Trees are rather weak, moderately productive and susceptible to bacterial spot. Its flower buds are tender to low temperature. This variety is popular with many growers because of the fruit's size, firmness, attractiveness and time of ripening.

Shipper's Late Red ripens 1 week after Elberta. Fruit is large, with medium to bright red blush and freestone. The yellow flesh is firm and medium-textured with good quality. Trees are vigorous and productive.

Southland is an early midseason variety, ripening 2 to 3 weeks before Elberta. It has fruit that is round, medium to large, and has yellow ground color with medium blush. Flesh is yellow, free and firm. This variety has low chilling requirements. It is good for freezing and canning and is being planted extensively.

Sunhigh ripens in early midseason. Its fruits are large, attractive and has light, solid red skin. Flesh is attractive, fine-textured, yellow, usually free and firm. The buds are fairly hardy to low winter temperature, but apparently tender to low temperature in early spring. Relatively short chilling is sufficient for Sunhigh. It is susceptible to bacterial spot. Its principal merits are firmness, size, and attractiveness of fruit.

Triogem is early, ripening about 3 weeks before Elberta. Its fruit is medium-sized and has attractive shiny color. Flesh is yellow, fine-textured, usually free, and firm. Flower buds are tender, and fruits may be small unless thinned well and early. Triogem gives good production.

CHILLING REQUIREMENTS and PROLONGED DORMANCY

Peach trees go into dormancy or begin their rest period in late fall. Enough cold weather is needed to break their rest period before February 15 for normal growth and blossoms the following spring. The amount of chill-

ing required depends on the variety. The number of hours below 45° F. to break the rest period of flower and leaf buds has been determined by Weinberger³ at the U.S.D.A. Horticultural Field Laboratory, Fort Valley, Georgia. This information for the varieties recommended for Alabama is given in Table 5.

When temperatures are abnormally high during the winter, peach trees do not bloom and fruit normally in early spring. This condition is called prolonged dormancy. Such was the case following the warm winters in central Alabama during 1948-49 and 1949-50.

Observations were made on 68 peach varieties in the spring of 1950 to determine their growth and fruiting response to the mild winter. The Mayflower variety, which requires 1,150 hours chilling for flower buds, was just beginning to bloom and had no foliage on May 4. As a rule, this variety at Auburn, Alabama, ripens

TABLE 5. THE FEBRUARY 15 CHILLING REQUIREMENTS OF PEACH VARIETIES

Variety	Hours at 45°F. or lower	
	Flower buds	Leaf buds
Afterglow	750	750
Cardinal	900	900
Coronet	800	800
Dixigem	850	950
Dixired	950	1,050
Elberta	850	950
Fairhaven	850	1,050
Halehaven	850	950
Hiland	750	750
July Elberta	750	750
Loring	750	1,050
Maygold	650	650
Newday	750	750
Redcap	750	750
Redhaven	850	950
Redskin	750	750
Rio Oso Gem	850	950
Shipper's Late Red	850	850
Southland	750	750
Sunhigh	750	750
Triogem	850	950

³ Weinberger, J. H. The February 15 chilling requirements of peach varieties. U.S.D.A. Agricultural Research Service, Horticultural Crops Research Branch.

May 15 to May 30. The Jewel variety, which requires little chilling, bloomed January 15. The fruit was killed by late spring frosts, but the tree was in normal foliage on May 4. Varieties with low chilling requirements (750 to 850 hours) had fruit ranging from ¼ to 1¼ inches in diameter and from one-half to three-fourths their normal foliage on May 4. Among these varieties were Afterglow, Dixigem, Elberta, Fairhaven, Halehaven, July Elberta, Loring, Newday, Redhaven, Redskin, Rio Oso Gem, Shipper's Late Red, Southland, Sunhigh, and Triagem.

TESTED VARIETIES NOT RECOMMENDED

Other varieties that have been tested but are not suggested for planting in Alabama except for special purposes are:

Ambergem	Jerseyland
Arp (Arp Beauty)	Jewel
Augbert	J. H. Hale
(August Elberta)	July Heath
Autumn	Laterose
Babcock	Lizzie
Barbara	Malt
Belle of Georgia	Mamie Ross
Best May	Mayflower
Beva	Michigan 20
Brackett	Mikado
Care	(June Elberta)
Colora	Missouri
Cumberland	Nile
Dale	Ozark
Dixigold	Prairie Clipper

Early Crawford	Prairie Daybreak
Early Rose	Prairie Rambler
Early East	Prairie Rose
Early Elberta	Prairie Schooner
Early Hiley	Prairie Sunrise
Early Jubilee	Radiance
Early Triagem	Raritan Rose
Early Vedette	Redelberta
Early Wheeler	Redcrest
(Red Bird Cling)	Redrose
Elby	Rochester
Erly-Red-Fre	Salberta
Fairs Beauty	Salwey
Fertile Hale	Slappey
Fine	South Haven
Fireglow	(Sun-Glo)
Fisher	Stark's Delicious
Frank	Sullivan
Gage Elberta	Early Elberta
Caheb	Summercrest
Gemmer's	Summerrose
Late Elberta	Sunbeam
Giant Jubilee	Sure Crop
Goldeneast	Take
Golden Globe	Tena
Golden Jubilee	Uneeda
Goodcheer	Vanguard
Graf	Vedette
Greensboro	White Hale
Halegold	White Haven
Hardee	Wildrose
Heath Cling	World's Earliest
Hiley	Yate's Late Elberta
Indian Blood Cling	Yellow Hiley

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