



ANR-1046

ALABAMA A & M AND AUBURN UNIVERSITIES

Suggested Nectarine Varieties for Alabama

In the Southeast, nectarines are generally more difficult to grow than peaches. The fruits usually don't have the blemish-free, attractive skin as those grown in western states. There is not a good selection of outstanding varieties available for the season.

In spite of this, tree-fruit producers in Alabama have expressed an increasing interest in producing more nectarines for roadside-retail and wholesaling. The list below provides information on some of the more promising selections for commercial, local, and home use. Some varieties have been in grower's orchards for several years, while others have received limited testing or have just been introduced. Therefore, these varieties are suggested for trial plantings to allow growers an opportunity to determine those best suited to their particular location. Growers must pay special attention to controlling brown rot on nectarines. As a group, nectarines tend to be more prone to fruit rots than peaches.

Winter Chilling Relationships

Winter temperatures vary across the state, with northern counties receiving the highest annual chilling ($\geq 45^{\circ}\text{F}$) accumulations (Figures 1 and 2). Growers in southern counties should refer to Figure 1 which measures chilling until February 15 to determine average chilling in their area. Chilling received up until February 28 is generally considered effective for central and northern counties (Figure 2). Lack of chilling can be a serious problem in southern counties where chilling usually averages 550 to 900 hours. In the southern two-thirds of Baldwin, Mobile, and Houston counties, the average chilling is 450 to 750 hours, depending upon location.

In general, growers north of Birmingham should only plant varieties with a chilling requirement of 850 hours or greater. Very few 750-hour varieties are hardy enough for this area.

In central counties, it is best to only plant varieties with a 750-hour chill requirement or higher. Plant 650-hour varieties on the warmest sites.

Grow varieties with chill requirements of 550 to 900 hours in southern areas. In extreme southern

counties (Mobile, Baldwin, and Houston) varieties with 500- to 650-hour chill requirements are ideal. The 400- to 450-chill hour, extremely early, varieties grown in these areas can be quite profitable but are very risky because of crop loss from freezes.

Crimson Gold and Fantasia appear to be quite low chilling but have reportedly proven productive in more northern production areas. Flavortop freezes out too easy and should not be planted in northern Alabama. If used in central Alabama, you should only plant in the warmest (most protected) locations. Of all the selections, Redgold has been grown the longest, is a good variety for northern and central production areas, and has performed well in some southern counties. Durbin has performed reasonably well in central Alabama but will usually have difficulty with cropping (freeze problems) in northern counties. Commercial producers in northern counties of the state have shown that Crimson Gold, Summer Beaut, Sunglo, and Redgold have fruited well under severe freeze conditions and produced high-quality fruit. In some years, a number of producers have reported serious problems in controlling brown rot on the fruit of Crimson Gold. With the exception of Summer Beaut, plant patents have expired on all of these selections.

Different Fruit Types/Varieties and their Characteristics

The number one criterion for a nectarine variety is that it must fruit consistently in the growing area. A variety cannot be commercially profitable without successful cropping.

The second most important characteristic of a variety is the ability to adequately size its fruits. Only varieties that can produce medium to large fruits (for season of maturity) will prove profitable. Firmness of fruits is the third most important criterion, if fruits are harvested and transported any appreciable distance (50 to 100 miles or more). However, some softer-flesh varieties may be used successfully in Pick-Your-Own (PYO) operations or in a local farmer's market where handling and transporting are greatly reduced.

An outstanding variety must also possess a number of other attributes such as attractive skin and flesh color, fruit shape, low percentage of split pits, and acceptable flavor. Flavor becomes especially important when fruits are marketed locally.

A number of nectarine varieties have been tested in southern Alabama but very few are being grown commercially.

- Armking is the leading variety but is rapidly losing popularity because of lack of overall fruit quality.
- Karla Rose (white flesh) produces fruits of outstanding quality for home or local use, and in spite

of severe problems with bacterial spot and fruit splitting in some years is worthy of planting.

- Several Florida varieties released in past years only have a chilling requirement of 400 to 500 hours below 45 degrees F. They may have potential but will probably have limited value because of early flowering that usually leads to crop loss by freezes.
- Sunlite fruits lack overall quality. Combined with early flowering, this selection is largely relegated to limited home use in the southernmost areas.
- Sundollar is worthy of trial but will probably flower too early. The same would generally be true of Sunsplash and Sungem.

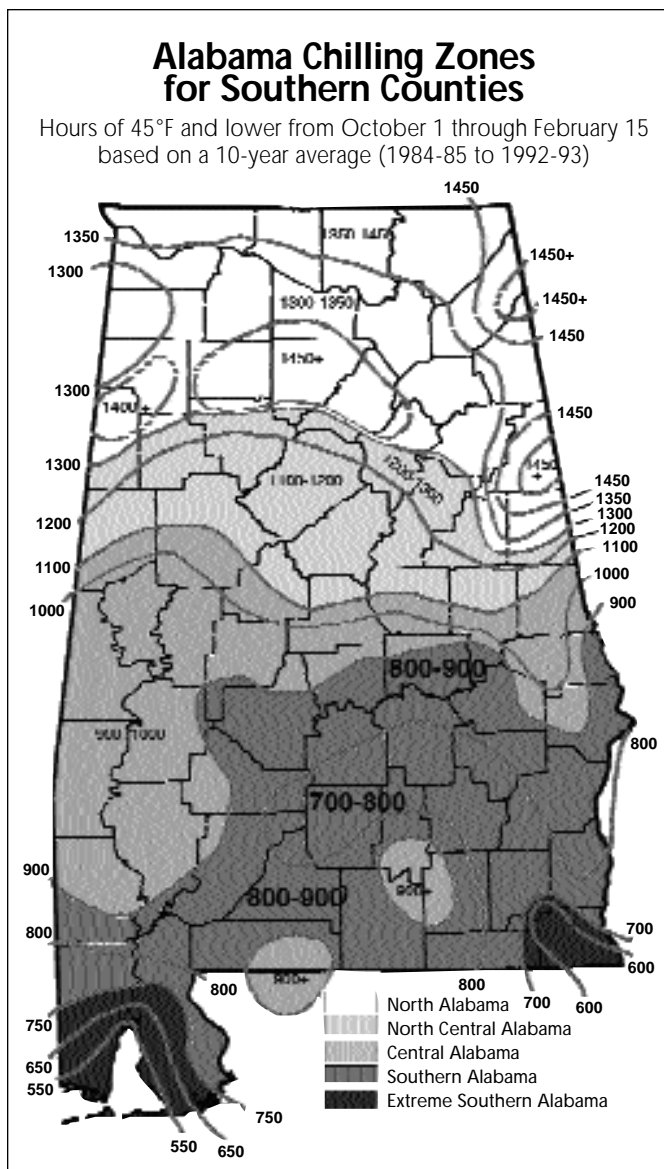


Figure 1. Alabama chilling zones for southern counties

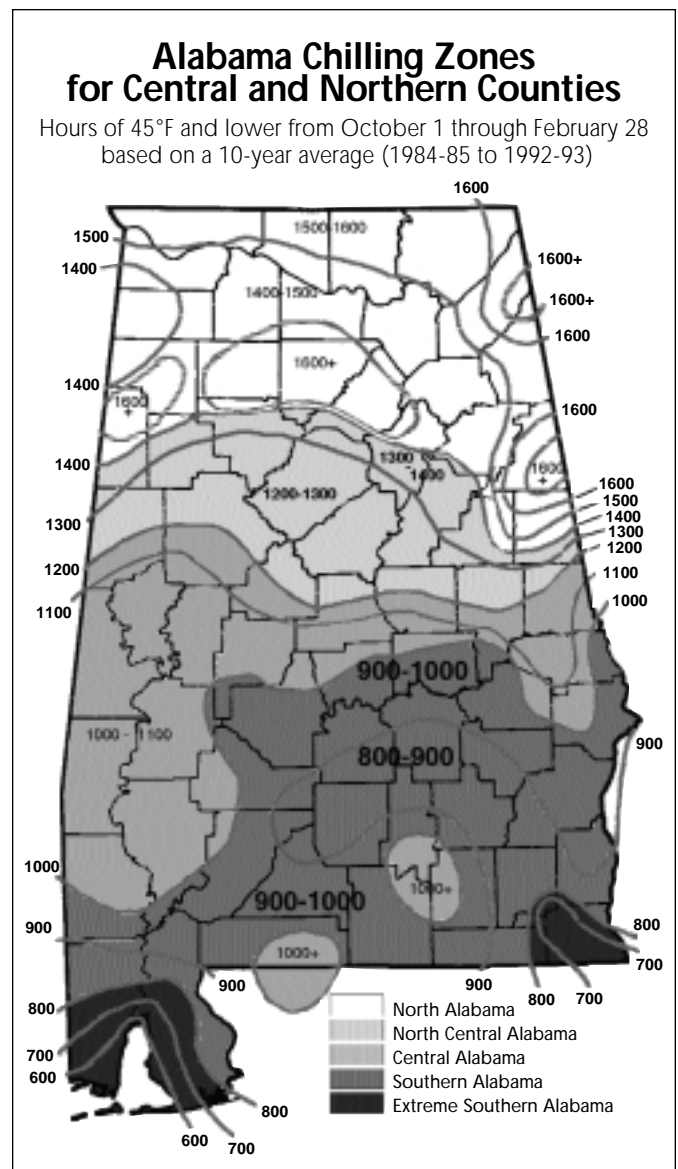


Figure 2. Alabama chilling zones for central and northern counties

Among the available varieties, the most promising selections for southern counties are: Crimson Gold, Carolina Red, Juneglo, Sunfre, Durbin, Summer Beaut, Sunglo, Fantasia, and Redgold. Mayfire is the earliest nectarine available, but fruits are generally of only fair quality. This selection is not proving to be very popular.

In addition to the varieties listed below, there are probably a dozen or more personal selections grown by individual growers in the state, some of which are performing well. These trees are generally not available to the public.

Table 1. Characteristics of Suggested Nectarine Varieties for Commercial Trial Plantings in Alabama.

Variety ^(a)	Days ^(c) Before Elberta	Cold Hardiness ^(d)	Chill Require- ment ^(e)	Area ^(f) Adapted	Market Value ^(g)	Pit ^(h)
Mayfire	63	P to F*	650	S,C	C	C
Sundollar	60	P to F*	400	S	C	C
Sunlite	55	P to F*	450	S	Local	C
Sunsplash	54	P to F*	450	S	C?	C
Sungem	54	P to F*	425	S	Local	C
Armking	49	F	550	S,C	C	C
Crimson Gold	42	E*	450	A	C	SF
Carolina Red ^(b)	39	F to G*	750	A	C	SF
Juneglo	38	F to G*	700	S,C	C	SF
Juneprincess	35	F to G*	850	A	C?/Local	SF
Sunfre	35	P to F*	525	S	C	SF
Karla Rose	34	P to F	650	S,C	Local	SF
Durbin	30	F	800	S,C	C	SF
Earliscarlet	28	F*	850	A	C	SF
Summer Beaut ^(b)	27	E*	800	A	C	F
Hardired	24	E to O*	850*	A	C	F
Roseprincess	21	F*	850	A	Local	F
Sunglo	19	E*	850*	A	C	F
Flavortop	14	P to F	850	S,C	C	F
Fantasia	7	F to G*	600	S,C	C	F
Redgold	5	E	850	A	C	F

^(a)All varieties have yellow flesh except Roseprincess, Juneprincess, and Karla Rose, which are white.

^(b)These are patented varieties—patent is either owned by Stark Bros. Nursery or company owning patent has assigned propagation rights to them. Patents have expired on a number of varieties including Redgold, Sunglo, and Crimson Gold.

^(c)Elberta usually ripens in early July in south Alabama, mid-July in central Alabama, and late July in north Alabama. To relate calendar dates to “Days Before Elberta,” consider that (depending upon location) Mayfire ripens early to mid-May, while Redgold ripens early to mid-July.

^(d)Cold hardiness—ratings are unacceptable (U), poor (P), fair (F), good (G), excellent (E), and outstanding (O). Estimated values are indicated by *.

^(e)Refers to hours at or below 45°F needed to satisfy rest (cold requirement) of variety.

^(f)Area in state where varieties are best adapted: entire state (A), central (C), south (S). Varieties with chilling requirements higher than 700 should not be planted in southern two-thirds of Mobile, Baldwin, and Houston counties.

^(g)Market value of some of these varieties has not been determined. C—should have good commercial (shipping) value as well as local use; Local—probably better for local retailing of short hauling (one hour or less).

^(h)Refers to freeness of stone—cling (C), semi-freestone (SF), freestone (F).



ANR-1046

Arlie Powell, *Extension Horticulturist*, Professor, Horticulture, Auburn University

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

Issued in furtherance of Cooperative Extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, and other related acts, in cooperation with the U.S. Department of Agriculture. The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.

UPS, 7M26, **New April 1998**, ANR-1046