

two may be said to look promising but the few Dixi plants set have lacked vigor.

There is a group of old varieties, including Adams, Sam, Harding, Grover, Dunfee and Katherine, which have practically disappeared. In some of the older plantings one occasionally finds Adams, Harding and Grover, but these are no longer being set in new plantings.

The variety picture for the present looks thus: Early varieties are not generally recommended but it's Cabot where one is wanted. For midseason, Pioneer or Concord is recommended, depending on soil type. For late varieties, Rubel and Jersey are best. And for trial, set a few Atlantic, Burlington, Pemberton or Dixi.



Rubel, the most widely planted blueberry in Massachusetts.



The Grape Varieties of California

By H. P. OLMO

California Agricultural Experiment Station

In California grapes are grown under a wider range of climatic and soil conditions than any other cultivated crop. On one extreme are the plantings of Thompson Seedless in the desert area of southern California, where the harvest for shipment to eastern markets begins in early June. Here the elevation is from 50 to 200 feet below sea level, the average precipitation is less than 4 inches per year, and searing temperatures during the summer have been recorded above 122° F. On the other extreme, small wine-grape plantings are isolated in the Sierra

foothills of northern California up to 2,600 feet, where snow is present during a part of the winter and the summer climate is cool enough so that the same variety, Thompson Seedless, does not ripen until November, and then not always completely.

Important Table Grapes

Largely by trial and error, certain of the many hundreds of varieties of grapes introduced from Europe and North Africa intermittently since about 1835 have found a commercial outlet. Plantings of some of the table varieties are now localized in areas where a good balance

is struck between high quality and good yield.

Thompson Seedless

The variety Thompson Seedless, first introduced into California in 1872 from the nursery firm of Elwanger and Barry of New York, and called to public attention by Wm. Thompson, has undergone a phenomenal rise in popularity. This is now by far the leading shipping variety grown for fresh fruit, and also is the mainstay of the raisin-making industry. In 1944, 175,324 acres were in production. The bulk of the production is centered in the Fresno area of the San Joaquin Valley. Other varieties principally used for raisin production are the Muscat of Alexandria and Sultana.

The Black Corinth (Zante Currant) with very small, seedless berries is also produced, but to a limited extent. Bakers and confectioners use the small dried berries in cakes and puddings, usually accepting the trade name of "currants" without hesitation. This variety requires ringing or girdling of the trunk or canes to obtain a set of fruit and sufficient enlargement of the berries. The practice of girdling or ringing to increase berry size is now generally practiced with the Thompson Seedless variety as well, especially for fruit that is shipped to eastern markets.

Other Dessert Varieties

The principal table-grape variety of large berry size is the Flame Tokay, an importation from North Africa, recognized on all markets by the brilliant red coloring and the very crisp texture of the fruit. This variety is grown to perfection in the Lodi area, in the central valley of



Thompson Seedless, the leading grape in California for use as a shipping variety for fresh fruit. This variety is also the mainstay of the raisin-making industry.

California, just east of San Francisco Bay, where the cooling ocean breezes entering this gap during the summer temper the climate and make it particularly suited to the variety.

Next in importance is the late-shipping Emperor, a very vigorous variety that matures and colors satisfactorily only in the hotter regions of the San Joaquin Valley. It is a variety par excellence for storage and shipment, the berry having a tough skin and tenaciously clinging to the stem. Its popularity rests on the eastern demand for fresh fruit during the Christmas holiday season, and it is extensively used in decoration of the dinner table. A brilliant color more than any other factor determines the margin of profit.

The Malaga is a yellowish-white, large-sized, oval grape, yielding symmetrical clusters of very good shipping characteristics. This variety does not appear to be holding its own as it meets increasing competition from girdled Thompson Seedless, and the planting of new acreage to this sort has lagged behind the other table varieties. The Red Malaga (Moliner) is no relative; it has been able to maintain its popularity because it is the earliest colored grape that withstands shipment. It can be easily recognized by the large, loose bunches of dark-red berries, that are spherical in shape and have a very crisp texture. The culture of this variety is rather scattered throughout the San Joaquin Valley; it has not yet proved to be especially adapted to localized areas, as have the Emperor and Flame Tokay.

A companion variety of the Red Malaga is the Ribier (Alphonse Lavellee) having the largest berries of any variety shipped in quantity from the state. The size and jet-black color of the Ribier rank it as one of the most beautiful of all fruits. The flavor of the variety is distinctive, and to many people not particularly pleasing unless the fruit is fully ripe.

A similar variety often confused with Ribier is the late-ripening Gros Colman (Fresno Beauty). Two cultural difficulties have prevented its wider acceptance: a tendency for the color to have a reddish hue except in some seasons, and an inherent cracking of the berries just before full maturity.

In addition to the table varieties mentioned, there are about a dozen other

varieties of lesser importance. Among them are the Cornichon, Olivette blanche, and Rish baba (the so-called ladyfinger types). Many of these minor varieties are in demand only on certain localized markets throughout the country, making plain that people as well as grapes have their idiosyncrasies. The demand for many of them is decreasing, and the high cost of production and extra care required of the grower in getting them to market in an attractive condition is not encouraging new plantings.

The only new introduction from outside the state that appears to be a promising table variety is the Italia, introduced by the California Agricultural Experiment Station from Italy. This is actually the first new variety introduced in the past thirty-five years that appears to be making a successful bid to compete with any of the established sorts of vinifera. It is a very large, yellow, oval-berried variety, with a mild Muscat flavor of excellent quality. Unfortunately the berries are sometimes inclined to be soft, but even with this defect it appears much superior to the Muscat of Alexandria for shipping purposes.

Juice Grapes

Another group of varieties principally used for juice purposes (about 1,000 acres in all) are grown in coastal southern California and to a limited extent in the foothill areas of northern California. The plantings are all small in size and comprise the Pierce (California Concord), which is a sport of the Isabella, the Concord, Niagara, and innumerable other varieties of the *labrusca-vinifera* group. Most any black variety having the

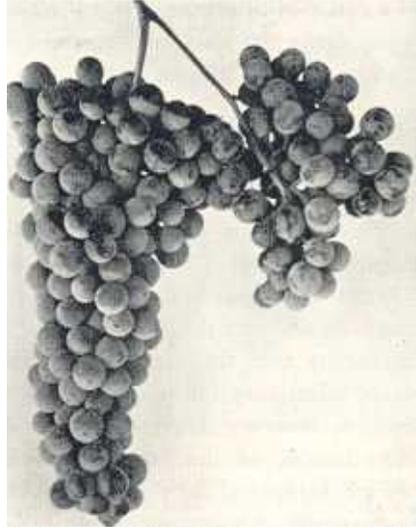
labrusca or foxy flavor is sold on the market as Concord. The outlet for these varieties is local and comes principally from new residents who retain a liking for the type of variety they knew back in the midwest or east. No industry of any importance has yet developed for the utilization of these varieties for commercial juice production.

Wine Grapes

The number of wine grapes is indeed large. As many as fifty varieties are grown commercially in blocks of five acres or more. Even a small vineyard under the same ownership usually contains from five to ten varieties. Superimposed on these mainstays of the wine industry are innumerable varieties that may be found indiscriminately mixed in what are taken to be pure plantings. Some of these relative unknowns are types producing high-quality wines in other countries, but are lost in the shuffle in California because they do not yield well nor respond to the usual vineyard care.

Zinfandel

Strange as it seems, the only variety giving a truly native California wine type is the Zinfandel, and it is an orphan. Apparently brought into the state in 1862 by the father of California viticulture, the Hungarian Count Agoston Haraszthy, it was among the 100,000 cuttings embracing about 1400 varieties that were laid on California's doorstep. By the time these were disseminated, the labels were lost or illegible; a misfortune that has ever since resulted in a confusion of varietal types that is almost without parallel in any viticultural area of the world. Since the Count was an Hun-



Carignane, an important grape for use making red table wine.

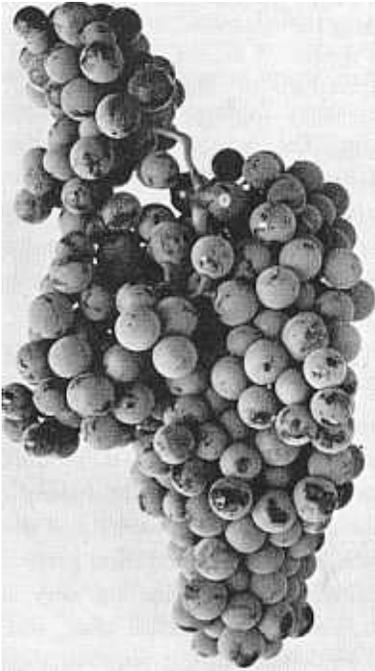
garian, many were early inclined to say the variety Zinfandel was of Hungarian origin. The only evidence for this belief was apparently one of professional courtesy. But despite its ignoble beginning, the Zinfandel is now the leading wine variety of California to the extent of over 50,000 acres.

The great popularity of Zinfandel was first made possible by the Italian immigrants who grew their own grapes and made their own wine—it produced a type of wine easily made, having good color and body, of pleasing and distinct flavor. Zinfandel suited them particularly because the young wine was very drinkable, retained a sweetish taste, and was not so delicate that it required the elaborate care of some. Although time and again investigators have pointed to some of its glaring faults and vehemently called

for a cessation of planting, it still retains its popularity. Its place has long been assured under the California sun.

Grapes for Red Table Wines

For the making of red table wines the next four most widely planted varieties are the Carignane (32,051 acres), the Alicante Bouschet (25,606 acres), and the Petite Sirah and Mataro, about 7,500 acres each. Of these the Petite Sirah is the best variety from the standpoint of wine quality when grown in suitable locations. Growers, however, favor the other varieties because of the ease with which they are grown and the year-in-and-year-out guarantee of heavy production.



Alicante Bouschet, a leading variety for making red table wine.



Mission, the most important variety used for sweet or dessert wines.

The Alicante Bouschet, although long known to produce a wine of inferior quality, is often profitable because the grapes stand shipment to home wine makers out of the state. They carry their own natural trademark for buyers in the dark red juice that drips from the berry when it is pressed between the fingers.

From the viticultural standpoint the Carignane is one of the best of all varieties, as it is easy to train, prune, and harvest the fruit, and produces regular and heavy crops. The principal varieties producing red dry table wines of high quality are only sparingly planted, the most cultivated being the Cabernet Sauvignon.

Grapes for Sweet Wines

For the production of sweet or dessert wines, the Mission was the first used in

California, having been planted at practically all of the Missions throughout California by the Franciscan padres, beginning at San Diego in 1781. It is still a recommended variety, after a hundred and sixty-five years, having once witnessed the trodding feet of the Indian converts and more recently the whirl and pressure of great mechanized crushers and presses. This variety and the Grenache enter into the production of the best port wines and angelicas.

The Palomino is a white variety now being more extensively planted for the production of special sherry wines. Its continued planting seems assured because

it is a wine of good vigor and yields good crops of very sound fruit.

For the production of white table wines, the Burger, Colombard, French Colombard, and Palomino are now most widely planted. None of these varieties is capable of producing wines of high quality, even in locations best adapted to them. The best white table wines in California come from small plantings of the Sauvignon blanc, Sylvaner (Franken Riesling), and White Riesling. Unfortunately the acreage devoted to these varieties is exceedingly small. The Muscat of Alexandria, besides its use as a raisin and table fruit, is the base of the sweet Muscatel wine.



New Yellow Freestones Changing Peach Season in East Texas

By H. F. MORRIS

Superintendent, Substation No. 11
Texas Agricultural Experiment Station

The principal commercial acreage of peaches in central East Texas consists of the varieties Hiley and Elberta. The Hiley, which is adapted to a fairly mild climate, is a heavy producer of a low quality white freestone fruit that colors early enough to ship the last of June. The Elberta closely follows the Hiley season. The later variety usually fur-

nishes a portion of the local requirements for canning and preserving. The majority of the crop from most commercial plantings is shipped to northern markets. The extensive use of these two varieties limits the main harvesting season of this section to the period of late June through July. As a result, fresh peaches are available on local markets for only limited period of time. It also brings about the problem of an insufficient supply of yellow freestone fruit in some seasons, because of poor set of fruit, drouth, hail,