

## **REPORT OF THE SUBTROPICAL FRUIT VARIETY COMMITTEE**

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The objective of the Committee on Subtropical Fruit Varieties is to study, register and recommend to interested persons those varieties of subtropical fruits, aside from citrus and avocados, which can be grown in parts of Southern California. Toward this end information is being sought constantly concerning new and old fruits and varieties of these fruits which can be helpful to members of the California Avocado Society and to others who contemplate the planting of subtropical fruits or who are merely interested in the potentialities of such fruits. Any information and data which is available concerning the subtropical fruits to be mentioned later can be obtained from any of the members of the Subtropical Fruit Variety Committee, who can be contacted through the Society Secretary.

The work of the Subtropical Fruit Variety Committee consists of two phases, namely, the study and registration of promising varieties and the observation of the behavior and periodic report on these varieties. The Committee members welcome information and suggestions at any time as to new seedlings or varieties which should be studied and registered. We are especially interested to learn of the growth and behavior of older varieties which already have been established in any areas, so that this knowledge can be incorporated into the annual report, thus to be of benefit to others.

The Society maintains an official registry of subtropical fruit varieties other than avocados. Varieties of the latter are registered through the Avocado Variety Committee. The subtropical fruit registry now consists of seventeen entries, among which are cherimoyas, white sapotes, tropical or common guavas, African carissa and one mango. Several registrations are pending. New fruit varieties are eligible for registration if they are brought to the attention of the Subtropical Fruit Variety Committee, which makes available the proper blanks and which photographs, describes and studies the fruit for registration. If any fruit varieties are found which are equal to or which excel those now being propagated be certain that the committee is informed of these new fruits, for such a discovery by anyone might be the basis of a new fruit industry or it may perpetuate for posterity the name of the owner or discoverer. New fruit varieties to be considered for registration must be submitted as samples together with certain data as to the location, parentage, season, bearing behavior, etc., the details of which can be obtained from the Subtropical Fruit Variety Committee. It is solely through the cooperation of everyone that we can improve the fruit varieties which form the basis of our fruit industries which are of minor importance at present, but which sometime may become of greater importance.

The past several years have shown that the cherimoya and white sapote are fruits with potentialities, at least on a small industry basis. Several very outstanding varieties of

these fruits have been noted and registered and a few have been planted in various areas, which allows for a better evaluation of their potentialities. The Ott cherimoya, the first fruit registered by the Society, still seems to do well in most areas. This is a patented fruit. It sets well and has a most distinctive and fine flavor. The Chaffey is another cherimoya which grows and bears well wherever it has been planted. The Chaffey has been especially promising near the coast, where it sets well without hand pollination and has the added favorable character of a smooth fruit surface. The Carter cherimoya appears to be best adapted to the coastal area of San Diego County, although it has not been tried under a sufficiently wide range of conditions to find where it grows best. The Carter is a late fruit with a very smooth rind and good keeping qualities. Among the desirable characteristics which are sought in the cherimoya are hardiness, good fruit set without hand pollination, varieties which are very early or late to mature, fruits with a smooth surface and durable skin, and fruits with high quality in respect to flavor.

The freezing temperatures experienced in most areas during the past winter proved especially harmful to the cherimoya. In many places complete loss of trees was observed and in other localities differential behavior of the varieties was noted.

Several selections of the white sapote (*Casimiroa edulis*) have been registered by the Society. Among these the May sapote is still outstanding in its bearing behavior and high fruit quality. The May sapote is an ever-bearing type, having fruits and flowers throughout the year. This ever-bearing character is highly desirable in the sapote, both as a commercial fruit and as a family-orchard tree. Another desirable feature sought in the sapote and exhibited by the May is a high sugar content of more than 25 per cent. There are many white sapote seedlings now growing in California which probably have the desirable characters of ever-bearing, high sugar content, and a durable skin which should be registered in order that we might have available better varieties of this most interesting and delightful fruit, which has come to us from Mexico.

The feijoa (*Feijoa sellowiana*), widely planted as an ornamental, is highly esteemed by those acquainted with the refreshing, fragrant qualities of its fresh fruit and with the delicate flavor of jellies and jams made from it. The plant is an extremely hardy, evergreen subtropical which is drought and heat resistant. It tolerates a wide range of soil conditions. Outstanding seedlings of the feijoa have been selected and propagated as varieties. Among these better varieties is one registered under the name Home. This variety is characterized by a medium to large oval fruit containing 12 percent sugar and of very good flavor. Feijoas generally set better crops when cross pollinated. The Home variety, however, has been found to set well although planted as isolated specimens.

The carob (*Ceratonia siliqua*), sometimes called St. John's Bread, which is one of our most common ornamental street trees, recently has been of interest as a potential source of protein and sugar for cattle feed and especially as a dry farm plant. It may prove useful to reduce or prevent erosion on sloping land and may be adaptable to marginal soils. Several fine specimens have been observed in many parts of California. A few of these unusually fine trees have been propagated as named varieties such as Bolser and Horne.

The Bolser originated as a seedling tree near Rialto, where it was discovered in 1916 by

J. S. Armstrong. The variety was named after J. Bolser, the owner of the property where the parent plant still grows. The plant is characterized by its heavy production of rather small fruit with a high sugar content (49-42 per cent). It is self-pollinating, having both sexes on the same plant. There is some tendency toward alternate bearing in this variety.

Another carob now being registered under the varietal name of Horne was discovered in 1948 by Dr. J. E. Coit. The variety is named after the late Dr. W. T. Horne of the Citrus Experiment Station, a true lover and enthusiast of subtropical fruits. The history of the parent trees located in Oceanside is unknown. The fruits are thick and long, up to six inches, and contain 30.86 per cent sugar. The tree is a hermaphrodite (contains both sexes) and is therefore self-fruitful, and bears a heavy crop. This variety is being planted on a relatively large experimental scale in San Diego County. The progress of the project will be watched with interest.

Considerable interest has been expressed by many people in the Macadamia or Queensland nut. These inquiries have been made in respect to the potentialities of the nut as a supplementary crop or even as a replant crop in some avocado and citrus districts. It has been a general observation that the macadamia grows well in many parts of Southern California where citrus can be grown, and that the plant will tolerate a wide range of soil and other environmental conditions. The Committee, however, is not yet ready to recommend the macadamia for orchard planting until considerably more data is obtained as to possible yields under California conditions, and until better varieties of demonstrated good size and yield have been found here or introduced from other areas. The increasing popularity of the macadamia in Hawaii and the expanding plantings in that area suggests the fact that we should have varieties in California which approach the better selections in Hawaii before we should attempt even a small industry in California. Intensive seedling selection in Hawaii has increased the average yield from 10 pounds per tree for ordinary seedlings to 150 pounds per tree for selected varieties. Ordinary seedling nuts contain about 10-15 percent kernel, whereas the better types now recommended for commercial plantings will crack-out from 30 to 37 percent kernel. It seems advisable not to propagate any varieties unless they are good yielders of high percentage of kernel. A survey is now under way by the Committee to get yield data and crack-out data on many seedling trees now in bearing in California. Several growers have imported some of the Hawaiian selections for trial in California. These will be observed with interest. The Hawaiian varieties may or may not be adapted to California conditions. The Subtropical Fruit Variety Committee urges that trees showing good yield and with large size fruits be called to their attention for testing and further observation. Until better varieties have been found in California, the macadamia can be recommended here only on an experimental basis to those who can afford the space with expectations of little or no returns from the plantings.