

CEIBA

A SCIENTIFIC JOURNAL ISSUED BY
THE ESCUELA AGRICOLA PANAMERICANA

TEGUCIGALPA, HONDURAS

February 20, 1956

VOL. 4 - No 6

TRIBUTE TO FLORIDA

Wilson Popenoe

IN THIS and the previous issue of Ceiba are a number of horticultural papers emanating from Florida. All of these were read at the meeting of the American Society for Horticultural Science (Caribbean Region) which was held at Escuela Agrícola Panamericana in April 1955. It may be asked: Just why is a paper on avocados in Dade County of interest to horticulturists in a region so distant as Guatemala? I think this question, and others of a similar nature, can best be answered by pointing out the tremendous importance the development of tropical horticulture in southern Florida has had, is having, and will continue to have upon the development of this field in the American tropics.

Many of our best fruit varieties have come from Florida, some from California; while a few, fortunately increasing in number, are of local origin. We have learned much from other regions, more especially from Florida (because conditions are in many respects similar to ours), regarding rootstocks, problems of vegetative propagation, cultural practices, and pest control. We owe a great deal to the horticulturists of that State, and to make this more apparent, I would like to touch briefly upon some of the work which has been done during the past 50 years or more, and some of the men who have done it.

Back in the 1880's Pliny Reasoner came to Florida, shortly to be followed by his brother Egbert Norman Reasoner. Pliny did not live long, it seems to me he died of yellow fever, but I am not sure. He and his brother established a nursery at Oneco, near Bradenton on the south side of Tampa Bay, which remained in the hands of the Reasoner

family until about 1930. They were a bit too far north to make the cultivation of such tropical fruits as the mango a simple matter. They had to fight hard to protect these and other things against the occasional frosts to which that area is subject; but they did a remarkable job of plant introduction, one which has probably never been equalled in Florida by private individuals.

They brought many grafted mango varieties from India; they combed the American tropics for fruit-bearing and ornamental plants; their catalogs were veritable manuals of tropical horticulture. Not only does Florida owe the Reasoners a debt of gratitude which can never be paid but we in tropical America are almost equally indebted to them. It is pleasant to add that the horticultural tradition of the elder Reasoners is still carried on by the third generation, though the Royal Palm Nurseries, as originally established by Pliny and so enthusiastically carried on by Egbert Norman, no longer exist. Which gives rise to the comment that the nursery business, as a general thing, is not one of the most profitable in the United States or elsewhere. It is often a work of pioneers, who must get their satisfaction out of the thought that they have done something for horticulture and for the prosperity of their respective regions.

Over on the East coast of Florida the cultivation of tropical fruits, based upon vegetatively propagated varieties, really got its start about 1900. Ten years previously, the United States Department of Agriculture had imported from India a few grafted mango trees, one of which, the Mulgoba, placed in the hands of Elbridge Gale at West Palm Beach, produced such magnificent fruits, both in external appearance and quality, as to create a real sensation and call attention to the possibilities of mango culture.

And right here it may be appropriate to remark upon the difficulties which attended the importation of grafted fruit trees from regions so distant as India. There were no airplanes to transport them rapidly; there were no plastics to make simple the shipment of scions for grafting. Trees had to be shipped by sea in miniature greenhouses called Wardian cases, and they had to be attended carefully en route. Even then failures were numerous.

George B. Cellon of Miami, which was then "at the end of the line", was the first to propagate commercially mango and avocado varieties by grafting. He used the method known as shield budding, and he concentrated upon the Mulgoba mango and two avocado varieties which he had selected among the numerous seedlings growing in the Miami region—these were Trapp and Pollock. Cellon had moved south from his home in northern Florida. He was a true plantsman and a most picturesque character.

At about the same time, or a few years later, John B. Beach established a nursery at West Palm Beach, whence he sold budded trees of mangos and avocados. I recall that when I first visited him he was experimenting with a new method of grafting avocados something on the order of the herbaceous cleft, as we call, it today. This is the first time I remember seeing very young rootstocks used, a common practice today.

In the early years of the present century, the United States Department of Agriculture established a "Plant Introduction Garden" at Miami, a tiny tract of only seven acres or so which was destined to play a major role in the development of tropical horticulture. I believe P. H. Rolfs, for many years Dean of the College of Agriculture at the University of Florida, played an active part in this; and then, for some years, P. J. Wester was in charge. I recall Dean Rolfs telling me that he had found Wester at the Royal Palm Hotel in Miami, where he was head gardener, and had recognized in him those qualities of the true plantsman which peculiarly fitted him for work at the new station. Wester later moved to the Philippines, where for years he was active in the work of plant introduction and propagation. He published many bulletins and papers, one of which, on the vegetative propagation of tropical fruits, is practically a classic, for he had succeeded in budding many species which had previously been grown only from seeds. Many of these species are still not commonly propagated by any other means.

Wester was succeeded by Edward Simmonds, who was for years assisted by Charles H. Steffani, recently retired as County Agent at Homestead. Simmonds had not been trained as a plantsman but he was born a plantsman. I remember his telling me how it happened that he got into the field of

horticulture. He was working in Washington, where he had come from his native country, England. He saw an advertisement to the effect that a man was wanted for work in one of the greenhouses of the Department of Agriculture. He called upon George W. Oliver, one of the great plant propagators of his day. "Mr. Simmonds", asked Mr. Oliver, "do you know anything about greenhouse management?" "Not a thing", answered Simmonds, seeing his chances going up in smoke. "You're the very man I want", replied Oliver.

The little garden at Miami soon came under the direction of David Fairchild, who had taken over the Office of Foreign Seed and Plant Introduction of the Bureau of Plant Industry at Washington. Not only did material continue to arrive from abroad, but many new varieties of tropical fruits, some of which have retained importance to this day, were developed as local seedlings. Special attention was devoted to mangos from all parts of the tropical world. When I worked at this little station in 1915 and 1916 there were more than eighty varieties of grafted mangos under trial. Many of these were of fine quality but not very productive. I recall that day when an enthusiastic amateur (and they were rapidly increasing in number) came to the garden with a shoe box. He opened it, carefully unwrapped a handsome mango, and said proudly, "You see that? There are two more on the tree!"

For many years the "little garden on Brickell Avenue" carried on its pioneering in the field of tropical horticulture, and especially tropical fruits, until it was practically blown off the map by a hurricane, and in addition, with the growth of Miami, had become so valuable as real estate that a move was made to Buena Vista, north of town, then to Chapman Field, south of Coconut Grove, where the government turned over a large tract of land which had been an air base during the first world war. This site was more favorable from the standpoint of climate, and the work of plant introduction was carried on, recently under the guidance of Harold F. Loomis.

Long before the move from Brickell Avenue, another great figure came into the picture, that of William J. Krome, an engineer who had been instrumental in building the "overseas railroad" from Miami to Key West. Mr. Krome

took up a tract of land near the modern town of Homestead. Here he planted commercial orchards of citrus, mangos and avocados, and worked intensively and profitably on methods of propagation and culture. His untimely death left his activities in the hands of his widow, whose useful comments on mango culture appear in this issue of *Ceiba* and in those of his son William H. Krome, whose excellent paper on avocado culture also adorns our pages. If I am not mistaken, it was a piece of Mr. Krome's land which was turned over to the University of Florida for the establishment of the Subtropical Experiment Station.

In our last issue we presented a paper by Dr. Bruce Ledin, in which are set forth some of the findings at this station, where has been assembled through the years a remarkable collection of fruit varieties, now under the direction of Dr. George D. Ruehle. Numerous well-known scientists, including Herbert S. Welfe, now Professor of Horticulture at the University of Florida, obtained much of their early training here.

Perhaps especial mention should be made of this station's development of superior varieties of the common guava, a fruit which in its improved forms will become increasingly useful; and of the study which has been made of mangos. But there are many other things to the credit of the scientists who have devoted their time to investigating problems of tropical fruit culture at this place.

In more recent times, and in this connection we refer our readers to the excellent paper in this issue of *Ceiba* by S. John Lynch and Roy Nelson. The "South Campus" of the University of Miami has been the scene of a remarkable job in the development of the vegetative propagation of such recalcitrant subjects as the mango, the guava, and the lychee. The latter, it should be mentioned, was really "put on its feet" by the late Colonel W. R. Grove, working near Sarasota on the other side of the State. The lychee had long been known in Florida, but only in the form of scattered trees, a few of which had been introduced in the early years by Reasoner Brothers, others somewhat later, through Dr. Fairchild's office in Washington. Colonel Grove was a retired army officer, a lychee enthusiast who not only perfected the propagation of this tree through the use of plastics in air-layering, but also stimulated com-

mercial plantings to such an extent that Florida now has a Lychee Association devoted exclusively to the commercial production and marketing of this excellent fruit.

Many other men took part in the early development of tropical fruit growing in Florida. I call to mind at this moment Dean H. Harold Hume of the College of Agriculture, University of Florida, and Harold Mowry, Director of Experiment Stations; T. Ralph Robinson of the U. S. Department of Agriculture, who did valuable work on avocados and papayas, as well as citrus; the Dorn Brothers of Larkin, south of Miami, who were pioneers in the cultivation of avocados and mangos; and J. L. Hickson of Miami who had one of the early orchards. I mention all of these because they are among those whom I knew personally; others I have not omitted intentionally.

And now, to come nearer home, I should mention that the work done in Florida in the early days naturally was reflected in neighboring regions, of which I believe the most important were Cuba and Puerto Rico. In a recent and interesting booklet entitled "El Mango", H. A. Van Hermann, dean of tropical fruit specialists in Cuba, recounts that George B. Cellon in 1906 supplied Roland R. Conklin 100 Mulgoba mangos for planting near Habana; at about the same time others were sent to Mr. Runyon at Guanajay, and to the Isle of Pines. These plantings were doomed to failure because Mulgoba produced small and irregular crops, but the work of propagating and testing varieties at "Finca Mulgoba" was carried on by Mr. Van Hermann for many years. Slightly later than in Cuba, I believe, plantings of grafted mangos were made in Puerto Rico, and useful work in propagation and cultural practices was done at the Agricultural Experiment Station in Mayagüez by Hess and by Kinman.

So now I come back to my original question or a variation thereof: Just what bearing does all this have upon fruit growing in tropical America generally? We owe to workers in Florida, and to a less degree, those of other regions, much of our present knowledge regarding the propagation and care of tropical fruits in general. Captain Haden of Coconut Grove, Florida, produced the Haden mango, a seedling of Mulgoba, the most important grafted variety