

A REPORT OF THE FLORIDA MANGO FORUM ACTIVITIES

W. W. CARMICHAEL

Miami

Organized by a group of Mango enthusiasts, headed by Miss Olga Kent, and sponsored by Mrs. A. Beck of the Ft. Lauderdale Garden Club, in July, 1938.

Chartered under the laws of Florida, as a non-profit Horticultural Organization, in 1946.

PURPOSE

Promotion of study of Mango varieties, and their identification.

Culture, Pest Control, and Soil Adaptability. The dispensing of information to its membership, and the public.

The Florida Mango Forum has grown and expanded through the years, and at present has more than 450 members in South Florida, and throughout the Tropical World.

It may well be imagined that the founders had little conception of the job ahead. The rapid development of new varieties has made possible the development of an Industry that has mushroomed past the 1½ million dollar mark annually. A great portion of this rapid growth may be attributed directly to the fine job done by the Variety Committee of the Forum. The job of weeding the wheat from the chaff has fallen on their shoulders. It may be surprising to note that less than one in each hundred varieties tested pass with sufficiently high classification to be considered a prospect in the Commercial field. It has become the custom of Nurserymen engaged in Mango propagation to use the findings of the Variety Committee, with a great degree of confidence. No new variety in the past 10 years has gained any prominence that was not favorably classified by the Committee. In this period more than 700 Seedling or Sport varieties have been tested and to date about 30 kinds are grown in Commercial Groves.

Increase in production for the past five years has exceeded 100% per year. This increase will continue for perhaps 2 to 3 more years, then gradually subside. This is due to great-

ly increased cost of acreage suitable for Mango Grove development.

In Dade and Broward Counties, many producing groves have fallen victims to subdivision development. Housing projects have sprung up where groves formerly flourished. Unless new areas are found where Mangos can grow profitably, large grove development is past. Mango distribution in Florida is largely confined to the area south of St. Lucie County on the East Coast, and Sarasota County on the West Coast, with small scattered plantings on Merritts Island. Dade County being the heaviest planted area with 70% of the mango population of Florida.

The mango season has expanded with production. Fifteen years ago the season was confined almost entirely to a three week period with 90% or more of the fruit shipped of the Haden variety. At present, due to the ever widening list of varieties, and maturity dates, the season begins May 15, and extends to September 15. It is easy to see the great effect this longer season has had on the market. In the early days the shipper was confronted by the problem of developing a market for a quick turnover, only to find the season over as soon as the market began to build up. The length of the season has greatly aided in introducing the mango to markets where it was unknown before. Ten years ago the mango could be bought on perhaps 6 or 8 Northern markets spasmodically during late May and early June. It is now being consumed almost throughout the North, South, East and West, with great relish and evergrowing demand. It now is rapidly assuming the position of a standard fruit commodity in the larger markets throughout the United States, and parts of Canada. In contrast to many Tropical fruits the beauty and flavor of the mango has made it popular with the public wherever it is offered for sale.

The Florida Mango Forum has maintained its position as clearing house for information, both to its membership and to the general public. It is equipped to advise planters on the best varieties, shipping problems, transportation, packing, harvesting, and marketing.

Members of the Forum serve on Committees covering every phase of the Industry. Great effort and large amounts of time, have been spent to correlate and dispense information compiled by the University of Florida, and the University of Miami, both of which have given wholehearted support to the Forum program. With the assistance of the Sub-Tropical Experimental Station, in Homestead, Florida, and the Experimental Farm of the University of Miami, at Perrine, Florida, much guesswork has been eliminated. Through the efforts of the Forum, the U. S. Department of Agriculture, began research on maturity dates in 1953 of the leading varieties, this work is progressing and is now including transportation, and storage problems. Through the combined effort of the Florida Mango Forum and the other Tropical Fruit interest the Department of Agriculture has built and equipped a laboratory in Homestead, Florida, to handle much of the work on tropical fruits. Thus eliminating the necessity of shipping fruit for research purposes to the main laboratory in Orlando, Florida. This field laboratory is manned at the present by Dr. T. T. Hatton, and Dr. John Popenoe, who will maintain a year round program on mangos, avocados, and limes. The Forum is now turning its efforts toward procuring additional funds for the purpose of adding a Pathologist to the staff of the Homestead laboratory. This we feel is much needed for the purpose of study of certain fungi, and bacterial decay, causing considerable spoilage of fruit in transit to distant markets. The Forum has enjoyed excellent cooperation from the U. S. Department of Agriculture. We wish to extend our grateful thanks to the Secretary of Agriculture, Mr. Ezra Benson, and to Dr. Harry Treelogan, Dr. Roy Magruder, and Dr. Paul Harding, for their able and friendly assistance.

We wish to express our grateful appreciation to the entire Florida Delegation in Congress, and to the House of Representatives for the strong backing we have received. We are particularly grateful to Congressmen Holland, and Smathers for work in obtaining the appropriation of funds for this research program.

The Forum being a non-profit organization with no means of collecting advertising funds, has been promoting sales by its own methods.

On June 22nd, mangos were presented on the Garry Moore Show on T.V., where the fruit received considerable attention. On June 29th, through arrangement with Mr. John Paul Riddle, President of Riddle Air Lines, we flew ripe fruit to New York, for the Arthur Godfrey Show. Fruit was sent in sufficient quantity to be distributed to every member of the cast, and the entire studio audience. Mr. Godfrey devoted 15 minutes of the program to the fruit, and gave us a wonderful plug in his usual enthusiastic manner. We have been told by Riddle Airline's Public Relations Council in New York, that this amount of time would have cost \$135,000. At this rate the Forum received \$270.00 in advertising for each mango sent. During the month of June, mangos were sent to the Cooking Editors of forty-five major newspapers in the heavy population areas of the country. With the fruit was sent the necessary data from which a comprehensive article could be written. The idea caught on with amazing results, more than thirty articles were published. The most outstanding of these was the half page color pictures in the New York Times.

The publicity had the desired effect on the market. There was a marked increase in demand, with better prices the latter half of the season with late fruit reaching an unusually high level.

The Forum has for several years printed a full color label, and brochure for the use of its shipper members. We have required users of this label to abide by a rigid code of ethics. First, only fruit of excellent quality may be shipped under this label. The shipper agrees to ship fruit of known and recognized varieties and that he will not engage in any business practice detrimental to the Florida Mango Forum. The Forum reserves the right to cancel the right of label use to any shipper upon receipt of complaint. This right of label use may be permanently suspended upon the decision of the Executive Committee after a hearing. In this manner we have built a recognized brand that is respected in market circles. It is a recognized fact that fruit shipped under the Florida Mango Forum label has consistently brought better prices than any other in the markets.

During the fruit season each year the Forum stages its Annual Exhibition. This has been

held in Miami, Ft. Lauderdale, Lake Worth, Palm Beach, and Bradenton. Last year's show was in Ft. Lauderdale, at the War Memorial Auditorium. Commercial Growers, and amateurs alike are invited to exhibit. In the last exhibit 128 varieties were shown. Committees are on hand to answer questions on all phase of mango culture, as well as shipping problems.

The U. S. Department of Agriculture, the University of Miami, the University of Florida, and the Garden Clubs of Ft. Lauderdale, cooperated to stage an excellent educational exhibit. This exhibit was attended by approximately 2500 persons. It has become a custom to hold our Annual Fellowship Dinner the evening preceding the exhibit.

On September 21st, the annual meeting was held at the Seven Seas Restaurant, in Miami. During the afternoon session papers were given by Dr. T. T. Hatton, and Dr. John Popenoe, of the Department of Agriculture, on

mango maturity work conducted by the department. A paper was given by Dr. D. O. Wolfenbarger, Entomologist, of the Sub-Tropical Experiment Station, University of Florida, on mango pests and their control. A paper by Dr. M. B. Cirlin, on mango dermatitis. Annual report of the Variety Committee by Dr. R. Bruce Ledin. Annual Report of Commercial Activities Committee by Mr. Harry Trafford. A paper by Dr. Walter A. Krienke, Dairy Technologist, of the University of Florida, on Variegated Mango Ice Cream. The meeting was recessed at 6:00 P. M., at which time dinner was served. The Annual Business Meeting was called to order at 7:30 P. M. The business session was followed by election of officers, for the coming year.

We are constantly trying to render a better service to our members, and to the public. The Forum represents more than 85% of the mango growers in Florida. This we feel indicates confidence in the program.

Ornamental Section

MOLYBDENUM DEFICIENCY OF HIBISCUS

P. J. WESTGATE

Central Florida Experiment Station
Sanford

H. N. MILLER

Agricultural Experiment Station
Gainesville

Molybdenum was first shown to be an essential element for the growth of higher plants in 1939 by Arnon and Stout (1), using tomato plants in nutrient solutions. Since then, the application of molybdenum in small quantities (a pound or less per acre) has given marked responses with various plants, including pastures in Australia and New Zealand (4), alfalfa in New Jersey (3), cauliflower (2), citrus (6), and white clover (5) in Florida.

STRAP-LEAF OF HIBISCUS

A unique disorder of hibiscus leaves and blossoms has been under observation and experimentation both at Gainesville and Sanford since 1951. The leaves of the affected plants are dark green, stunted and constricted, with prominent, distorted, parallel veins. The leaves are often narrow and strap-like in appearance, thus suggesting the name "strap-leaf" (Figs. 1 & 2). The flowers, instead of having the normal number of five petals, are often deformed, sometimes having a smaller number, or even a mere tubular corolla without petals (Figure 4). Branches of the affected plants are otherwise normal in appearance.

Specimens of strap-leaf of hibiscus have been observed in Florida from Pensacola to Miami and from Tampa to Daytona, including numerous locations in central Florida. Invariably, affected plants are found growing in acid sands with a pH of 5. or lower. Normally, hibiscus plants do well at pH 6. or higher.