SOME TROPICAL FRUIT POSSIBILITIES FOR FLORIDA

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Ladies and gentlemen of the Florida State Horticultural Society:

I owe you an apology for appearing before you again. I have been before you already too many times. I have too little in the way of scientific observations to warrant my appearing on your program so often. I am reminded of a remark made by the great Simon Newcomb, America's greatest astronomer and one of the most modest scientists of the generation that has just passed. His wife sent word up to him from the drawing room where someone had called to see him, asking him to come down. He excused himself with the words: "Please tell him that I have no new facts to communicate." I fear when you have heard what I am to say this evening you will remark that I might have better made a similar excuse and yielded the floor to some younger and and more worthy person.

The motive which has induced me to speak this evening is a hope that from something I may say, some young person in the audience may get encouragement to push on into a field of investigation which I think I see opening up slowly but surely ahead of us, the field of the improvement of tropical fruits suited to culture in Florida.

I am quite aware that some of my friends will feel when they read this paper in the Proceedings that I have gathered together a lot of fruits that have been, as they say, "kicking around" here in South Florida for many years and failed to make much of an impression on anybody. This may be so, but I think the history of plant introduction is the history of fragmentary beginnings, of plants which made no appeal or even negative appeals to the few people who came in contact with them. In other words, new fruits or new vegetables just have to be kicked about and abused and vilified until someone, somewhere, takes up the cudgels in their defense. For the world of the palate is a world of its own without a scintilla of reason in it. Man has never grown out of his swadling clothes in matters of taste. The men and women of the Stone Age were, I imagine, not one whit more positive regarding the new roots and wild fruits offered to them by the pioneer plantsmen of their time, than are the city dwellers of today regarding the new things presented to them in gilt wrappings by those who want to sell them some novelty in the food line. Taste in fruits and vegetables is about as primitive as it ever was.

For this reason I shall have to leave out of the discussion here all questions of whether these fruits I mention are, as some of my audience would say, "really good to eat.' In my personal opinion, many of them are delicious, even in their present wild shape. What they might be developed into is a matter of imagination. But let us never forget how far apples and peaches and cherries have come since they were wild.

Here are a few of the many I could name. I shall arrange them in the order in which trees of them stand in my own narrow strip of land facing Biscayne Bay, starting on the lowland near the coast and ending on the "reef," so-called, of Miami limestone at the highway.

The Pond Apple (*Annona glabra*) is considered inedible and I am willing to concede that even I have never been able to eat it, but so far as I know no attempts whatever have been made to domesticate it; few also have been attempted with the hardy representative of the same family to which it belongs, the Northern Paw Paw (*Asimina triloba*) of the Annonaceae. These two fruts are among the largest wild fruits which occur on the American continent. One is tropical while the other resists the Siberian cold of Indiana and Illinois. Around them are clustered in the systematic botanies of our libraries a whole galaxy of annonas and related genera, some of which rank with the finest of the world's fruits. I have only to mention the Cherimoya, the Sugar

Apple, the Guanabana, and the Illama, veritable fruits of the gods.

The Pond Apple interests me in a peculiar way because it is a native of the low marl prairies near the sea and can even live and bear in the swampy lands of the Everglades. It is at home in a class of soils which characterize millions of acres of South Florida. Experiments dating back to 1912 have shown that this species can be used as a stock for the Custard Apple (*Annona reticulata*) which latter fruit bears well and already has won a place on our tables, although inferior to the Cherimoya or the Sugar Apple in quality. This congeniality of the two species is significant perhaps and may prove the entering wedge in the improvement of the Pond Apple. Until sufficient experiments have been made to prove that these two will not interbreed even when the modern techniques of plant breeding are applied to them, we have not cleared the first hurdle. I remember when the horticulturists declared that the avocado was incapable of propagation by budding. Then George B. Cellon budded it.

Should these two cross and refuse to fruit, prove to be sterile hybrids, there is still the chance that colchicine can be used in making the hybrids fertile. I have here before me Sears' article just published showing his production of hybrids between two *genera* of grasses which have been made fertile through the employment of colchicine. In the photo-micrographs of the cells from the root tips of this hybrid between Aegilops and Triticum the chromosomes of the two genera of grasses are to be clearly seen, 28 of them instead of the 14 characteristic of the species which were crossed.

Any view of the future of plant breeding of these tropical fruits which I am here speaking of must take into consideration the probable discovery of efficient drugs for the doubling of the chromosomes of hybrids. The approach of new plant breeding technique as outlined from time to time in the Journal of Heredity deserves to be carefully watched. The cell is the unit and without a fundamental knowledge of its behavior, horticulturists are no more likely to make great progress than were the chemists before they began their studies of the structure of the molecule.

But to return to the prospects. With the study of the pond apple as a stock and with the possibility of its hybridization, there will open up one of the most fascinating fields for the plant breeder; for into the melee may be poured the protoplasm of the following species, all of which have shown their ability to grow fruit in the warmer portions of Florida.

The Guanabana or Sour Sop (*Annona muricata*) fruits which furnish the sweet fruit pulp used in the famous "Helada da Guanabana" so popular in Cuba, grows rapidly and fruits abundantly and deserves a place in every dooryard. It is very tender, losing its leaves at 40° F., but it recovers quickly and produces its fruit over a long period. Two-pound fruits are common and I have eaten one in Panama that weighed 25 pounds and was delicious. On "The Kampong" we serve Guanabana ice to our guests throughout the season as the fruits on our trees ripen. So far as I know this has not been tried on the Pond Apple stock nor has it been bred with it. I have tried to cross them but so far have failed. This is not to say that they will refuse to mingle their protoplasms or that crosses of them with other species will refuse to intermingle.

The Sugar Apple (*Annona squamosa*) is perhaps the most fragile held together of the tropical fruits for it falls to pieces when ripe, its carpels separating from each other on the slightest touch. It drops its leaves in winter and the pond apple would seem unsuited as a stock. Scattered here and there in the Miami area are bearing trees of this delicious fruit and it has been crossed by both Simmonds and Wester with the Cherimoya, which is supposed to be incapable of fruiting at sea level judging from "general experiences" of colonists in the West Indies and elsewhere.

The so-called hybrid is designated by the name of "Atemoya" and there are several strains of it and possibly it should be made the starting point in breeding work because of its hybrid character. It has been budded on the pond apple with some success. Fruits weigh half a pound or so and must be picked when just ripe. Until a visitor

has tasted the delicious fruit pulp of the sugar apple he has not really set foot inside the tropics with its array of fruit flavors. Every sheltered dooryard deserves to be the site of at least one Sugar Apple. In British India it has gone wild and is a most important fruit. Recently in Alexandria and Cairo, Egypt, orchards of it have been started which are proving commercially successful. The Egyptians have done much more with this fruit than we have. I cannot overlook the experiences I have had with fruits from my own trees on "The Kampong;" the delight of the guests to whom I have given them.

The Cherimoya (*Annona cherimola*) considered by many the rival of the Mangosteen and worthy to be called the "masterpiece of nature" is a deciduous species better adapted to the dryer high altitude coastal regions of Peru and Chile than to our own lowland areas.

Travelers in Chile and Peru report finding on the tables of the people there fruits of this masterpiece weighing nearly seven pounds and having a deliciousness that is indescribable. Far too superficial are the studies that have been made of this species by our horticulturists. The question of proper stocks for it has been given almost no consideration. Varieties of it suited to our conditions may already exist in some parts of the great area over which it has now been distributed since its discovery by the Spanish. Since time immemorial it seems to have been one of the favorite fruits of the peoples of Western North America. I have eaten this delicious fruit on the west coast of America; gathered it on the terraces of the tiny island of Madeira and seen it in many of the sub-tropical areas of the world including California where it seems to do well and deserves more attention according to many who have seen it there.

My Custard Apple or, as it is sometimes called, Jamaica apple tree (*Annona reticulata*) is in fruit now and already I have had some splendid fruits from it. In the ice box is a magnificent specimen presented to me yesterday by Mrs. L. H. Baekeland whose husband, the great inventor, has some perfectly delicious fruits on his tree in a "pothole" in his yard. When picked at just the right stage they may be kept in the refrigerator for days and eaten at leisure. As mentioned before, this can be easily grafted on the Pond Apple and should be given an extensive trial on the marl prairies along our coasts by someone with the requisite initiative and capital.

The Senegal Annona, called by the Gambians the "Diorgud" (*Annona senegalensis*) is growing splendidly on "The Kampong" but, alas, so far, although it has flowered every year, it has never borne a fruit. I have tried in a rather desultory way to cross it with the pond apple and the sour sop with which it appears to have affinities, but without success. It has, however, grafts of the custard apple and that other desirable species from Guatemala, the Illama (*Annona diversifolia*) and, according to Sayid Ahmed of Cairo, seedlings of it have carried grafts of the true Cherimoya. Who knows but that this African species may play a double role in the development of the annonas here? As a stock and in its own right, it deserves study, for, according to travelers, its yellowish or orange colored fruits are esteemed in Northern Nigeria where it is called the wild pawpaw and "the finest wild fruit in that part of Africa."

I have mentioned in passing the Ilama (*Annona diversifolia*) of Guatemala, of which Wilson Popenoe in a recent letter said: "It is a first class thing and must be disseminated." The fruit which attains a weight of half a pound has an advantage over most of the other fruits of this genus in possessing a hard shell which should ensure its safe transport to market. In looks I can assert that it is a handsome-appearing fruit, for last summer several from my own trees were shipped to me at my summer home in Nova Scotia and the heart-shaped fruits quite surprised and delighted me with their magenta pink color overspread with whitish bloom.

Alas, however, a bitter disappointment awaited me, for my man Sands had picked them before they were ripe (July 22) and they never did ripen or mature seed but decayed before my eyes. To add insult to my already injured feelings, Sands reported that a rat devoured the only remaining fruit on the tree, although it had been covered with a paper bag to protect it. And this after a wait of many years, for my single tree stands in

an unfavorable location, but I dare not move it for fear of losing it. This summer I hope for better luck.

Since this Illama will, according to Popenoe, withstand light frosts and often grows in regions where the rainfall is light and bears when five or six years old, I have hopes that it will take an important part in any breeding program that may be carried out with this fascinating group of tropical fruits.

Leaving the genus Annona for a moment in order to assemble before you the group of tropical fruits with which some of us here in this tropical part of Florida have been playing, allow me to speak of another genus, the Rollinia, from the mouth of the Amazon.

It has been called "the finest annonaceous fruit in tropical America" by one who had eaten most of them, and both Mrs. Fairchild and I who tasted it in 1912 when a tree of it bore in the Miami Garden, found it "delicious.' This species is *Rollinia orthopetala* A.DC., a tree which grows along the Amazon on land which is often flooded for some time during the rainy season and therefore may perhaps be suited for sheltered Everglade locations or may be grown under frost protection. The fact that it has been once fruited in the Miami area is encouraging. I brought a tree of it into flower on my rock soil on "The Kampong" but before it could fruit it was struck by a cold winter followed by one of our exceptionally dry springs and succumbed, but not before it had convinced me that given better protection than I had given it this species of Rollinia from the mouth of the Amazon would fruit here and perhaps amaze us with its delicate fruits.

Having now spread before you accounts of a half dozen species of tropical fruits which have either fruited here or are growing well here and with regard to which there can be no reasonable doubt that materials for the plant breeder can be obtained, allow me to show you in what a galaxy, so to say, of species these few that we know well are standing.

Some of this galaxy are surely capable of growing here. Others are entirely too tropical to survive our winters. But with the facilities which the opening of the "universal highway overhead' has brought us, these strictly tropical forms can be made to yield their pollen for such experiments as my imaginary breeders are going to make in the production of entirely new and, let us hope, strikingly delicious fruits for the tables of the future here in South Florida and, who knows, perhaps even the tables of the metropolitan centers of this country.

There is the *Annona bullata* with its aromatic leaves and scarcely edible fruits, a native of Cuba; *Annona marcgravii* from Venezuela, with large yellow flowers and fruits five inches in diameter which ripen in December and have a flavor which the monographer of the family to which the annonas belong, Dr. W. E. Safford, describes as "resembling fermenting bread dough to which honey has been added;" *Annona montana* from Porto Rico which is already growing here but whose fruit flesh although dry and "inedible" can be eaten, as they say, and in any case which might prove a good stock; *Annona purpurea,* the Soncoya of Panama, whose fruit, although very attractive with a fruit pulp of a gorgeous orange color is very fibrous; *Annona salzmanii* from southern Brazil where it is called the Araticum and where it grows near standing water and bears light, creamy-yellow, sweet fruits; *Annona scleroderma.* the"Poxte" of the natives of Cajabon, Guatemala, and the "Posh" of those in Alta Verapaz, the "hard-shelled" custard apple because of its very thick, hard rind. This Poxte is said to have a fruit pulp that is perfect and a flavor much richer than that of the sour sop, aromatic, delicious, with a suggestion of the flavor of the white sapota, and its thick rind might make it a good shipper.

Continuing with the galaxy, there is the spiny Brazilian shrub or small tree with orange red, heart-shaped fruits, called *Annona spinescens,* which grows in marshy land near the river banks but has rather insipid-flavored fruits.

Then there are a number of Rollinias which might be worth gathering in for the plant breeder, such as *Rollinia muscosa* from Colombia, called there the "guanabano" but distinct from the Cuban "guanabana" with a flavor inferior to the custard apple; *Rollinia emarginata* from Paraguay which its introducer, Thomas Gwynn, says

is called the "araticuy," a "large fruit aromatic to the utmost." A specimen of this species withstood the 26° temperature of 1917. Another species sent in by the same Thomas Gwynn, Rollinia sp., called the "Cherimoya chica colorado," with "small red fruit" growing on a bush and to my taste the best of all varieties," while quite recently Mr. Erlanson has sent from Merced, Peru, a species which he found growing in the rain forest there with yellow pubescent fruits of which he sent a photograph showing it to be about six inches in diameter. He reports it to be "excellent in flavor, somewhat tart and sweet."

Sénor Carlos Thays sent in, in 1912, *Rollinia parviflora,* a shrubby tree from the primeval forests of Southern Brazil which has been lost; and Dorsett and Popenoe collected during their explorations of Southern Brazil, in 1914, *Rollinia dolabripetala* from near Minas Geraes with large fruits which they did not get a chance to sample; *Rollinia glaucescens* from the same region with small, heart-shaped fruits of a bright orange color but "only fair" flavor; *Rollinia laurifolia,* with heart-shaped fruits of which we have no record but the photograph they took of it; and a wild "araticum," *Rollinia sylvatica* from Bom Fin, which appears to be a small shrubby tree.

The last of the Rollinias of which I have an account came in from Manaos on the Amazon and was sent by the veteran entomologist J. G. Myers who says it is like a sugar apple in shape and color but considerably larger, with soft, drooping spines and a smooth, almost custard-like pulp of a delicate flavor. This is *Rollinia deliciosa* but may prove to be identical with *Rollinia orthopetala* of the lower reaches of the same great river.

I cannot close this list of the galaxy of the Annonaceae without referring to two "constellations" that lie somewhat farther out, on the margin, as it were, of the "assemblage of splendid beautiful things" which compose the main galaxy.

One is a fruit said by Popenoe to be rather common in the mountains around Pochutla in the province of Oaxaca, Mexico. It is of a bright orange color and in size and shape resembles curiously the northern pawpaw of Indiana and Pennsylvania, being borne in clusters or "hands" just as they are. It is classified as *Sapranthus* sp. and because of its curious resemblance to the pawpaw I have been trying to get it in order that my friend Dr. Zimmerman of Piketown, Pennsylvania, can have pollen of it with which to pollinate the flowers of his pawpaw trees on the hillside back of his house. Once only did we fruit what I take to be this under another name, *Porcelia,* but nobody then was foolish enough to be interested in breeding the pawpaw and it was lost from our collections.

The other fruit is the "Keppel," favorite of the Javanese sultans' harem, reference to which I made in my "Exploring for Plants" in 1930. It is now twelve years since Mrs. Fairchild and I photographed the fruits of the Keppel on the veranda of the hotel at Karangpandan, within sight of five of the great volcanos of the world. Before us stood the Merapi, the Soembing, the Oengaran and the Merbaboe, while behind us the land sloped from our hotel upwards to the smoking Lawoe 10,600 feet above our heads. We packed the seeds of the Keppel here and tagged them with their stupid scientific name, *Stelecocarpus burahol,* and got them off to Washington. Later we saw a beautiful tree of it in its lovely new growth of deep pink leaves and close by stood a handsome tall ficus tree from which hundreds of pretty red fruits had fallen that we gathered and sent off in the same postal packages that contained the seeds of the Keppel.

Many things have happened since those supreme moments. Twelve years of things. I turn to see if I said anything about Keppel or the beautiful ficus tree in the book and find these words, written four years after the seeds were sent in:

Here is what I find:

"The whole family to which this keppel belongs has for years had a peculiar interest for me and I was naturally delighted to find one I had never heard of before, especially as I think it offers possibilities for South Florida as well as for the tropics of the Western Hemisphere, so I gathered and packed hundreds of seeds. As I write these words I am wondering how large my little keppel tree has grown to be since I left it in my home in South Florida six months ago. In

flavor it is perhaps more like its cousin, the so-called pawpaw (*Asimina triloba*), which grows in thickets along the Potomac, than any other of the order, but it is juicier and sweeter, 'more refined,' though I do not know exactly what that means. It has a delicious aroma, as do all the annonaceae, and I think one might become extremely fond of it." This was written nine years ago. Alas, almost every one of the seedlings which grew from the hundreds of seeds of the Keppel which I sent in have perished. They were propagated in flats and pots in the greenhouse according to the fixed technique of the propagators of the time and every plant appeared in Florida with a corkscrew root, and they have just refused to grow.

What part the spiraling of their roots had to do with it I cannot prove in the absence of direct controlled experiments, however.

In contrast with the fate of the keppel stands the ficus with the red fruits which we saw at the same time and of which I said a few pages farther on in "Exploring for Plants": "I hope before many years to have the pleasure of walking under one on my own place, though I do not even know its scientific name."

Not only have I had the pleasure of walking under it and every sunny day having luncheon under it, but my youngest daughter, Nancy Bell, was married under it on the 11th of January, just before she left with her husband, Marston Bates of Fort Lauderdale, for his post in the Rockerfeller Foundation at Tirana, Albania. The large wooden tag I fastened to the little tree has long since been engulfed by a mass of trunk which is now four feet through, and the branches have a spread of forty feet or more. To this day it bears no specific scientific name, either, for it has refused to fruit, and without fruits no ficus tree can be determined with certainty.

And now I have an apology to make.

When I gave, which I did very reluctantly, the title of a paper to Secretary Floyd, "Some Tropical Fruits for Florida" (not Sub-tropical Fruits, as appears on the program), I imagined that I could describe at least half of those I am playing with on "The Kampong."

My time has gone, however, and I have scarcely begun. I have said nothing about the Canistels of Brazil (*Lucuma nervosa*) of which I have a score of varieties and even a hybrid with *L. Serpentaria*, of the Matasano and White Sapote (species of *Casimiova*) of which I have a variety which bore fruit weighing over a pound and hadn't a trace of bitter in it; of the Ceylon Gooseberry (*Dovyalis gardneri*) from which Dr. Traub made an excellent pie; the Governor's Plum (*Flacourtia ramontchi*) and its relative *F. cataphracta* whose fruits are as delicate as plums to eat out of hand; the Akee (*Blighia sapida*) whose brilliant fruits when they open are as decorative as flowers and the arils of which when fried in butter are as delicate as can be; the Tropical Jujube (*Zizyphus mauritiana*), the fruits of some seedlings of which actually stink while others are as good to eat as crab apples and make delicious jellies; the *Muntingia calabura* from Cuba with its small pink berries which have a perfumed flavor recalling somewhat the perfumed taste of the Rose apple; the Java plum (*Syzigium cumminii*) under a tall tree of which thousands of dark purple fruits fall during the midsummer season; the Wampi (*Claucena wampi*) with clusters of grape-like fruits that one eats as one would grapes though the species is a citrus relative; the Carambola (*Averhoa carambola*) which is loaded down each winter with thousands of star-shaped acid fruits, excellent as sauce for serving with fish, a favorite of the South Chinese; the Bael fruit (*Aegle marmelos*), "favorite fruit of the Kings of Candy," etc. The list is too long, and I fear I am boring my audience, so in rapid succession I will merely mention the Jack Fruit, the Barbadoes Gooseberry, the Peach palm, the Pitanga, its relatives the Pitomba, the Grumichama (*Eugenia dombeyi*), the *Utowana ugenia* from the Gold Coast, the *Antidesma bunius* which has been sold as a jelly for years here; the Star apple, trees of which are fruiting now; the passion fruits, the jaboticaba, of which Dr. Wolfe will speak tomorrow, and last but by no means least, the mango, of which I have fifteen varieties from the eighty sorts which were introduced during the early days of plant introduction here.

The field, ladies and gentlemen, is an immense one. The doors into it are open for the reception

of the plant lovers of this coming generation. Would that I might turn back the dial of time, bring back the brown hair to my head, lengthen the working days of daylight, shorten the interrupting, disturbing factors of social obligations, and with my old friends, Simmonds, Swingle and Webber, start in to gather about me the relatives of these superb fruits which some day may be welded into forms that the world has never dreamed could be produced.

This, ladies and gentlemen, is positively my last appearance before you, and I leave my dream of the world of improved tropical fruits which should sometime be growing here in Florida in your laps.

Good night.

LIST OF SOME TROPICAL FRUIT POSSIBILITIES FOR SOUTH FLORIDA—*For a Speech Before the Florida State Horticultural Society, Hollywood, Fla., April 18, 1939.*

THE ANNONAS:

		As possible stocks:
Cherimoya	*A. cherimola*	
Sour sop	*A. muricata*	*A. sengalensis*
Sugar apple	*A. squamosa*	*A. bullata*
Custard apple	*A. reticulata*	*A. glabra*
Poxte	*A. scleroderma*	Pond Apple
Ilama	*A. diversifolia*	Porcelia
Keppel	*Stelecocarpus burahol*	Sapranthus *A. montana*
Rollinia	*Rollinia orthopetala*	
Tortoise shell custard apple	*A. testudinea*	

THE LUCUMAS:

Canistel or Ti-es: *Lucuma nervosa*
Lucuma mammosa
Lucuma roxburghii
Lucuma multiflora
Lucuma serpentaria

THE WHITE SAPOTA AND MATASANO:

Casimiroa edulis
C. tetrameria

THE EUGENIAS:

Grumichama	*Eugenia dombeyi*
Pitomba	*E. luschnathiana*
Pitanga	*E. uniflora*
Rose Apple	*E. jambos*
Jambolan	*Syzigium cumini*
Utowana Eugenia	*E. coronata*

THE LICHEE AND LONGAN:

Litchi chinensis
Euphoria longana

THE GARCINIAS:

Mangosteen G. mangostana
G. spicata
G. mestoni
G. xanthochymus
G. celebica
G. binucao
G. tinctoria
G. livingstonii
Rheedia braziliensis
R. madrono

THE AVOCADO RELATIVES:

Persea schiedeana	"Coyo"
Persea pittieri	"Yas"

THE MANGO RELATIVES:

Mangifera altissima	"Pahutan"
Mangifera caesia	"Binjai"
Mangifera foetida	"Bachang"
Mangifera laurina	"Manga monjet"
Mangifera odorata	"Kuwini"
Mangifera verticillata	"Bauno"

THE CITRUS RELATIVES: Swingle's struggle.

Claucena lansium
Aegle marmelos, Bael fruit
Citrus pectinata (as stock)
Swinglia glutinosa "Tabog" (a new stock)
Atalantia disticha
Afraegle panniculata
Feroniella oblata
Feronia limonia
Balsamocitrus Dawei
Balsamocitrus gabonensis
Murraya koeningiana, The Curry Leaf Tree
Aegelopsis chevalieri

MISCELLANEOUS FRUITS:

Jack Fruit ("Honey Jack" variety), *Artocarpus integrifolia*
Muntingia calabura
Averrhoa carambola
Averrhoa bilimbi
Star apple (*Chrysophyllum cainito*)
Barbados Gooseberry (*Malphigia glabra*)
Ceylon Gooseberry (*Dovyalis hebecarpa*)
Governor's Plum (*Flacourtia ramontchi*)
(*Flacourtia cataphracta*)
Akee (*Blighia sapida*)
Jaboticaba (*Myrciaria cauliflora*)

Passion fruits: *Passiflora edulis, laurifolia, quadrangularis, maliformis* and native species *P. pallens.*
Tamarindus indica
Sapodilla (*Achras sapota*). A grafted tree in India.
Antidesma bunius and *A. platyphylla* and *A. nitidum*
Cashew (*Anacardium occidentale*)
Tropical Jujube (*Zizyphus mauritiana*), "Jay Pan Apple"
The Tropical Figs: *Ficus roxburghii* from Himalayas and *F. iteophylla* from The Gambia.

President Brooks: We will now have the Memorial Service that is in charge of Mr. F. M. O'Bryne of Lake Wales. This service will conclude our program for this evening and we will adjourn until tomorrow morning at 9:30.

MEMORIAL SERVICE

F. M. O'BRYNE
Lake Wales, Florida

Each year we pause during our meeting to pay honor to those of our members who have departed this life since we last met.

This year we mourn the loss of five members who ranged from the flower of young manhood to a ripe old age, all men of distinction and prominence in their respective communities.

Mr. H. B. Stevens of DeLand was the inventor of the first sizer patented in this state and introduced the Pineapple orange. He joined our Society at its second meeting and was ever a loyal member.

John F. May of Winter Haven was another old-timer who was ever active for the citrus industry. He was a leading spirit in the Orange Festival and other civic and industry enterprises.

Dr. R. W. Barnett of Gainesville, cut off tragically in the flower of early manhood, was one of our leading scientists.

Mr. J. C. Compton of Orlando and Tom B. Carpenter of Crescent City were both men of influence in their communities and in the industry.

We mourn them at this meeting and will continue to miss them keenly for years to come. Obituaries will appear in the Proceedings.

May we ask you to stand while we are led in prayer by Rev. E. H. Rice.

(Prayer. Taps.)