

Miami Fla Oct 20th 1923.

Mr. J. R. Deane,
Leamington Hotel
Miami
Florida.

Dear Mr. Deane:-

Answering yours of 19th inst and referring to your enclosure of letter from Dr. F. W. Brandes, Pathologist, United States Department of Agriculture Washington D. C.

It is certainly extremely unfortunate that Dr. Brandes has not been in the Cape Sable District, nor made a study of the marl (clayey limestone) soils of the lower Everglades.

His assumption that these Cape Sable soils are "more likely to be of the so-called "Saw Grass" type which is not as suitable for agricultural purposes as the "Custard Apple" type" is of course predicated on the premise that the Cape Sable soils are the "Saw Grass" type which is found in the central portion of the Everglades, this is erroneous as the Cape Sable soils are in the main a class of soil which can only be classed with the marl soils as found only in extreme southern Florida on such Prairies as Allapattah, (near Miami upon which successful and successive crops of vegetables have been grown for the past twenty-five years, I personally grew three successive crops of sugar-cane on this prairie from ratoons of original planting, and my last crop was even better than the original or first crop, the land became so valuable for other crops that I dug out, and it was no small job to do so) the sugar-cane and used the land for growing truck crops for the Miami market, this land is now the property of Ernest Schaef who conducts a canning factory on the property, Little River (at which point A. B. Jones and others have grown successive and successful crops of vegetables and I am sure sugar-cane), Fulford (where Hon R. E. McDonald and others have proven the value of these marl lands for both vegetables and sugar cane, Danie where marl lands have been under cultivation successfully for over twenty five years, Larkins, where for over twenty years these marl lands have been cultivated and each year they have improved and increased in production, Peters and Perrine where the wonderful T. J. Peters tomato farms are located, he finding it profitable to farm these lands even before the F. R. C. Ry was extended South from Miami, hauling his crops by mule team to Cutler and they in

there is a vast open prairie of this excellent marl and from that point extending to the ~~very~~ point of the Penninsular to Cape Sable.

The Cape Sable marl in the writers opinion is the oldest formation being the first formed, and as the chemical action as explained to you is ever producing this marl, and had the drainage of the Everglades been delayed Nature would have replaced the "saw Grass" peat ~~XXXXXXXXXX~~ of the interior Everglades with this marl, in fact I am firmly convinced that this would have been the instance even up to the very rim of Lake Okecho bee, as this formation of marl ~~XXXXXX~~ ^{is} heavier than the undecayed vegetable matter upon which it first rests, and the marl being heavier sinks or settles below the "peat"; in time the peat either drifted away at the high water period, or was consumed by fires during the dry spring months thus leaving the marl lands as natures finished soil for the use of man.

I quite agree with Dr. Brandes that it cannot be assumed that all the soil ~~is~~ in the Everglades is capable of producing satisfactory yields of vegetables and sugar cane as I believe ~~this~~ ~~XXXXXXXXXXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~ this "saw Grass" area is not at this time soil of any classification as it has not as yet become plant food, and when it does it will have gone through years of decay, and will shrink or settle ~~XXXXXX~~ ~~XXXXXX~~ at least twenty five percent, or if nature had been given its way it would have ~~XXXXXXXX~~ been replaced by marl in time.

As I see the "Custard Apple" ~~XXXXXX~~ area around the shores of Lake Okecho bee the washings of the waves on the Lake caused a "rim" to form, custard Apple trees sprang up, the root system, and the annual falling of leaves ~~from~~ these trees and the catching of drift which easily decayed and really produced a soil that ~~is~~ ~~is~~ fertile and as this area of Custard Apple was ever increasing by the simple acts of nature and thus is ~~an~~ "older" soil of the "Upper Everglades" as is the marl the older soil of the Lower Everglades.

Just how long these Custard Apple lands will continue to be fertile is of course a debatable question, but it is fair to assume that so porous, soft, spongy available soil will soon exhaust themselves unless deeper plowing is resorted to and new soil brought to the surface

Of course planting any kind of crop on the Custard apple land is more or less an experiment, except in the instance perhaps of high Hammock lands which were seldom if ever under the water at our summer extreme rainfall period, and naturally these soils being high in nitrogen content and low in potash content will not produce any crops which "carry" or "keep" well this might be overcome by resorting to ~~XXXXXX~~ the use of potash to "ballance up" this soil.

Timber

Crops of vegetables however grown on marl lands are firm and solid with little ~~XXXXXX~~ of the watery character which seem to be the instance ~~is~~ of vegetables grown on muck soils no matter where located.

I wish that Dr Brandes could see the planting now at H. The plant has answered from the past 27 years Drainage, seepage, evaporation, absorption---Enginers,, must provide irrigation-----Ginsburg----- New Region---old Region