

1274  
Miami, Florida,  
January 10, 1924

My dear Captain Jaudon:

I have, as you know, spent eighteen months recently in the upper 'Glades at the Sugar Mill of the Florida Sugar and Food Products Co. about one mile south-east of Canal point on Lake Okeechobee. During that time, it was my privilege to explore the eastern bank of Lake Okeechobee from the mouth of the Miami canal north to the St. Lucie Canal, and thence on to Okeechobee City. Further, to have made two visits to the west side of the Lake, taking in Moore Haven and Clewiston. On all occasions, with a view of sampling the muck soil and determining their availability for agricultural and other uses. From September 1922 to December of the same year, excessive rains hampered all operations and we were practically flooded out. From June 1923 until the time I left on September 13th, we were again under water, not so much from excessive rains in our immediate locality, but from the water shed of the Kissimmee Valley which raised Lake Okeechobee to a dangerous level. Up until a few weeks ago it had always been my impression that the Everglades were the Everglades, and that with slight variations of soil and water levels, the same conditions existed all over the vast Everglades Drainage District. You can judge my surprise when during the last two weeks I have had an opportunity to examine the lower 'Glades, which in a general way I should state, commenced about the line dividing townships 50 and 51 and from there on to Cape Sable, and have awakened to the utter dissimilarity of these two main sub-divisions of the District. Taken as a whole the upper 'Glades is a peat and muck deposit, varying in depth from two to twenty feet, combustible, as are all such lands in dry weather, and a report from the Fire Warden shows that in 1922, according to his estimate, 100,000 acres was burned over. I am not aware that the simple burning of the upper crust of the lands is in any way detrimental to subsequent cropping, but the lowering of the land level by fire, renders such places too wet for cultivation whenever the water table rises the least bit above normal.

As to the fertility of the muck land of the upper 'Glades, taken as a whole, there can be no question. But, their liability to

1  
1274

burn, and further to continue to settle to lower levels as they are drained and cultivated, even to the extent of as much as six inches per year, renders their permanent ~~cultivation~~ cultivation a matter of serious question.

Referring to my approximate location of the line dividing the upper and lower 'Glades, I find in and about this point a gradual change from muck to marl, which becomes more pronounced as we proceed south towards the Tamiami Trail and from there on to Cape Sable with the exception of some large muck beds close to the Gulf, we find practically nothing but a marl soil varying in depth from one to six feet.

A recent trip to this part of the 'Glades lying between Florida City and Cape Sable, taking in the Royal Palm Hammock, indicated above all things the ease with which this country could be freed from excessive water, when we were able to walk dry footed over vast tracts of marl land formerly flooded, but which have been made available for first cultivation by the simple digging of one small canal from which the rock was excavated in order to built the Ingraham Highway. At this stage of reclamation it would be impossible to predict the result of future operation on this land, were it not for the fact that large acreages of tomatoes are already growing, together with the orange and grapefruit grove on the Jennings Tract, and the vigorous growth of the Royal Palms which have been set out on either side of several miles of this highway. This land seems to me, from general observation, from several samples carefully taken, and from the growth upon it at this early state of reclamation, to be much preferred to the muck lands of the upper 'Glades, as it is neither liable to combustion by scattering fires, nor to any material subsidence on account of drainage. As has been shown during many years of experience with tomatoes and other truck crops on this class of land, all that is needed is a bacteriazation, in order to make available the plant food unquestionably present in these long submerged soils. ?

There can be no question as to the necessity for permanent crops to bring out the full value of the Everglades, notably, sugar cane, for which this land is unquestionably adapted, as is shown by the small, scattering clumps obtained which have been carelessly planted from time to time under the most adverse conditions and still



1274

survive in a healthy and vigorous condition.

While I do not pose as an expert in the growing of sugar cane, I have in the past eighteen months carefully observed its growth in many different locations in the upper 'Glades, and its manufacture into syrup and sugar, proving beyond all doubt that the muck lands are available for such a crop. At the same time there has always been a feeling of uneasiness in my mind as to our ability to overcome the great drawback of destruction of the crop, both by fire and flood, which even a cursory examination of the Cape Sable lands shows to be impossible as soon as inexpensive drainage is adopted. The experiences of the past two years in the Everglades as a whole, have certainly taught us that to attempt to sell lands or induce settlement upon them without first showing their availability for the crops, it is intended to raise upon them, and further to protect them from flood and fire is a procedure which is liable to get the sellers into serious trouble.

In conclusion, it needs but a fair examination of the Cape Sable and adjoining land, to confirm all that I have here written, and I am perfectly willing to leave it to experts and laymen to say that in this short discussion, I have but stated opinions which time will prove to be correct. It is difficult to understand the prejudice against a reclamation of and cultivation of these lands by our scientific horticultists in Washington and elsewhere, and my only conclusion is that they have taken for granted many opinions expressed without taking the trouble to investigate for themselves. It is not difficult to vision, in the near future, large areas of sugar cane and other permanent crops growing on this land, which above all things will be within very short time of railroad transportation, without which no lands have much value.

I thank you for the opportunity ~~me~~ given me to inspect these lands, and hope my future visits to keep in close touch with what I believe will turn out to be the greatest of all developments in the Everglades Drainage District.

Yours very truly,

Edward J. Paulsen