

A preliminary study of the Godineau clay soil of the Oropouche lagoon was made to investigate the farmers' complaint, that in recent years crop yields in the lagoon had decreased.

The land mapped as Godineau clay was divisible by eye, into four main areas, only three of which were under cultivation. A comparative investigation was made, in these three areas, of soil factors known to effect crop yield.

The areas were St. John's or Area A; La Fortune-Pluck Road or Area B; and Godineau River Area or Area C. The period of the study was from early December 1966 to early March 1967.

Godineau clay is a mottled, hydromorphic, grey clay, overlying a fibrous brown peat. Its location, morphology, smell and chemical analysis show it to be a potential acid sulphate soil. Drainage of this soil will result in the development of toxic sulphate soil conditions. Successful utilization of this soil is dependent on an efficient water control system, which at present, is absent. A possible method of reclamation is suggested, based on improved water control methods and on the use of brackish water from the rivers of the lagoon, during the dry season.

There is a danger of saline patches developing in the dry season in Areas B and C, particularly in low lying places. Area A is very low in nutrients whereas Areas B and C are moderately supplied.

The decrease in yields could result from the gradual development of acid sulphate soil conditions, since the construction of New Cut, magnified by the present exhaustive farming practices.

It is concluded that the development of agriculture in the Oropouche Lagoon should be planned and ordered and should be based on the results of field experimentation and research.