

INTRODUCTION.

Object of study.

The object of this study was to arrive at a number of conclusions that might be of interest to Vincentians, pertinent to the "land use potential" of those soils that could be described as "High Level Yellow Earth" soils, and "Recent Soils from Volcanic Ash."

A definition of the use of the term "land use potential".

In this dissertation, "land", is considered a factor of production in the farming enterprise.

The potential use of land is therefore considered not only in terms of what the land could produce, the "soil" use potential, but also in terms of how lands might most profitably be used at the present time and in the foreseeable future.

The approach made, was to study both "scientific" and "economic" aspects of "land use potential."

A summary of the approach to the study of the "scientific" aspects of "land use potential".

The approach was by:

- (A) A critical review of pertinent literature.
- (B) In the field observations.
- (C) Experimental work.
- (D) Questioning agriculturists

associated with St. Vincent.

Some notes on the study and its presentation.

This study was greatly facilitated by the fact that over the past few decades, knowledge had

been accumulated, in sundry ways, on a number of topics relevant to land usage, and that most of this was available for study.

Originally, it was intended that field work for this study by the author, was to be limited to two short visits, (each of approximately two weeks), to St. Vincent. Due to circumstance, the author was able to visit St. Vincent three times.

These visits were made between:

1. August 3rd - 20th, 1961,
2. November 9th - 26th, 1961, and
3. December 8th - 17th, 1961.

The second visit was made primarily on other business, although the author was able to carry out some other field work on this visit.

For convenience, the study has been divided into two parts, viz:

PART ONE. A study of the soil use potential of the High Level Yellow Earth soils and the Recent soils from Volcanic Ash, and,

PART TWO. A study of the land use potential of the High Level Yellow Earth soils and the Recent Soils from Volcanic Ash.

In a sense, "Part One" is an appendix to "Part Two", in this study.

Notes on Part One.

The basis for a study of soil usage should be the soil survey.

The most useful soil survey that can be carried concerning St. Vincent soils. Because of this, it was

out, so far as agriculturalists are concerned, are genetic soil surveys, because they subdivide soils on the basis of those processes responsible for soil formation, and consequently give much valuable information on the likely behaviour of soils. Unfortunately, a genetic soil survey for St. Vincent has not been carried out, at least in the sense that this term is used in New Zealand, taking account of "inherited", "acquired" and "induced" characteristics. (N. H. Taylor, 1948), and it was necessary to use information obtained from past soil surveys to its best advantage.

It is necessary, for practical agricultural purposes, to learn more about those basic factors affecting soil usage, in addition to what can be learnt from the soil surveys and further employment of soil survey technique.

Techniques including:

1. field fertilizer trials,
2. soil chemical analysis,
3. pot fertilizer tests, and
4. soil "physical" experiments,

were used in the course of this study. It was intended that such would be carried out on representative portions of those two soils studied, in order that their value would be maximised.

The amount of field work for this study was limited, and it could hardly, in itself, be sufficient to support many very valid conclusions. - It merely adds to the bulk of information already available concerning St. Vincent soils. Because of this, it was

considered desirable, that much of "part one" be taken up by reviews of past scientific work.

For ease of perusal, it was decided to divide "part one" into five sections.

- (A) Notes pertinent to soil survey.
- (B) Field fertilizer trials.
- (C) Pot tests.
- (D) Physical experiments.
- (E) A brief account of the major conclusions on soil usage, based on the findings of sections (A) - (D).

It was further decided, to subdivide each section into at least three subsections, including:

- (a) a review of past work,
- (b) an account of work carried out by the author,
- (c) a brief summary of the important points arising from both the past work and the author's work.

Note on Part Two.

The layout of this section is more or less in the form of an essay, and an attempt was made to make it self explanatory.

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