

SOME GRASSES AND LEGUMES ON THE I.C.T.A. FARM., TRINIDAD.

INTRODUCTION.

In this preliminary report it is not intended to deal with more than a few grasses and legumes, which have been, and are being experimented with, on the College Farm, up to the present time.

The idea is to begin a collection of facts, giving up to date information on results so far obtained, in order that a start can be made, the ultimate aim of which, it is hoped, will be a Book on the grasses and legumes of Trinidad. It is hoped that this work having been started, will be continued by other Students.

Today there is no ready reference to Grasses and Legumes of Trinidad, and those who wish for information have to get it by searching through many Books, Pamphlets and Dissertations, and a percentage of this information is out of date. If over the next few years a wide range of Grasses and Legumes are investigated and reported on, and the information collected and brought up to date, there should be ample material to make the publication of a Book possible. I would stress that this report is therefore only in the nature of a start, and will be of little value unless it is carried on by others.

In Trinidad the field for experimentation on pastures is practically a virgin one, although the pastures on the College Farm are an excellent start to the investigations on the possibilities of ley farming on the Island. Good natural pastures do not exist, and will therefore have to be made. To ensure the correct rotational use of land, a grazing rotation is essential. Although this is not possible until one, and preferably two or three, good grazing grasses have been found. It is of vital importance that a wide range of grasses should be experimented with, and every effort made to produce a grass that will stand up to grazing, under conditions that prevail on the Island.

At the present time a Soiling System is in general use. This system must of necessity be expensive and also wasteful of labour, although under prevailing conditions in Trinidad, where stock are so limited in number, these disadvantages do not appear of such importance. Never-the-less all grass has to be cut and carted, before being fed. This means a great deal of handling, which is automatically eliminated when a grazing system is substituted, and in addition under a grazing system, the transport of manure from the byre to the field is eliminated. The advantages of the grazing system over the soiling system are bound to be more evident when the numbers of stock are increased.

Martin in Uganda, and other workers, have shown that an excellent way to build up crumb structure of land, is by using a grass rotation. That this grass must be used for the benefit of stock, and at the same time receive manure, is obvious. To accomplish this, the ideal system is to "fold" stock on the pasture, and by this is meant the grazing of the maximum number of stock, on the minimum acreage. This is more fully discussed later under "Electric Fencing". By concentrating a large number of stock on a small area and then moving them on, full use is made of the manure, which should be distributed by chain harrowing or by use of some similar implement.

The making of Hay and Ensilage can be incorporated in the rotation, and should undoubtedly be an accepted practice in an area where a marked dry season occurs.

The way in which a legume can most beneficially be incorporated into the grass rotation is a matter for considerable investigation. Successful growth of legumes provides a ready and economic method of building up the soil fertility, particularly with reference to the increase of organic material to the soil, although evidence as to their value in the Tropics is conflicting, but that they must play their part in any rotation can be appreciated when the following benefits from their use are noted.

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1. Add nitrogen to the soil.
2. Improve soil texture.
3. Protect the soil from the suns rays.
4. Bring up deep plant food from the sub-soil.
5. Smother weeds.
6. Improve the protein content of pastures.

Legumes are an accepted ingredient of any seeds mixture for pastures in Temperate countries, and should be regarded as equally essential for pastures in the Tropics.

Until satisfactory grazing grasses are produced for general use on the Island, little headway can be made in securing a correct rotational use of the land. To ensure the acceptance of good mixed farming principles, it is essential that at least one satisfactory grass be proved, and if possible quantities of seed made available to Farmers. Until such time as this has been done, little improvement in the standard of farming is likely, and the present farming system, which is not based on stock, is likely to continue.