

A. INTRODUCTION.

The present thesis is the result of earlier work which was undertaken to investigate the value of pastures for feeding to stock in Trinidad.

A brief preliminary survey, however, sufficed to show that the extent and value of pastures in Trinidad is small and that very little reliance is placed in the pastures as a means of supplying the bulky part of the ration of either Dairy Cows or draught bullocks. This is due to the following causes:-

1. Pastures are not easily established or maintained in Trinidad, partly owing to the lack of a drought resisting flora and partly owing to the destructive effect of the molecricket.

2. The lack of sufficient rain during 4 to 5 months of the year prohibits the growing of pasture grasses, thus necessitating alternative feeding for a period of the year.

3. The quality of pasture grasses is poor and there is reason to believe that their mineral content is low.

4. Fodder grasses and crops thrive during the greater part of the year to the extent that it is possible to cut and feed them to stock instead of, or supplementary to, pasture.

It has been found that on the few Dairy farms, or on the large sugar estates where a big head of stock is kept, the bulky or succulent part of the ration is almost entirely supplied by cut fodders, pastures being only used to a minimum extent for this purpose and only as a means of exercise for the animals or as a change from being kept in yards or byres.

Similarly the peasant farmers owning only one or two head of stock also rely a great deal on cut fodders, though a small amount of grazing, chiefly from the roadside, is common. During the dry months these people rely exclusively on what supplies they can obtain from the traces of sugar cane fields, the

the sides of roads, and from waste patches.

From this, then, the fact emerges that in Trinidad fodder grasses, such as Elephant Grass (*Pennisetum purpureum*), Para Grass (*Panicum barbinode*) and others are extremely important in the best wet months of the year, chiefly in supplementing pastures, and in the dry months, with the aid of Sugar Cane tops and Uba cane, in replacing them almost entirely.

For these reasons the original idea of investigating the the feeding value of pastures was abandoned in favour of an investigation of the nutritive value of the chief fodder crops since it was felt that these were of more importance than pastures in the feeding of cattle in Trinidad.