

INTRODUCTION

In the search for non-human food as a source of nutrients for livestock production, grassland is becoming of increasing importance in many parts of the world. Grass, as a cultivated crop, has in the past been of little importance in West Indian agriculture. Likewise, the extent and value of pastures in Trinidad is small; the bulk of the ration for cattle being supplied mostly by cut fodders, not pastures. There are, however, many peasant-owned cattle whose sole maintenance during most of the year consists of rough grazing on waste ground or roadside verges. In such places and over much of the pasture acreage, Savanna grass (*Axonopus compressus*) is the most common species.

Although the climate of Trinidad favours the growth of fodder crops, little attention has been given, until recently, to the problems of pasture management. This would seem to be due to the following causes:-

- (1) The difficulty of establishing and maintaining pastures.
- (2) The lack of sufficient rain for the growth of pasture during the dry season necessitates alternative feeding of fodder.
- (3) Pasture species available before the introduction of exotic grasses were poor yielders.
- (4) Fodder grasses and crops grow throughout most of the year, so that it is possible to cut and feed them instead of pasture.
- (5) Fodder grasses greatly outyield pasture grasses and although lower in nutritive value produce a greater quantity of nutrients per acre.

In temperate regions, the nutritive value of many animal feeding-stuffs has been determined and comprehensive feeding

data is available. The completeness of this data does not, however, extend to tropical areas. Consequently, animal feeding in the tropics is still largely an art with little scientific backing.

The need for extended work in tropical animal nutrition scarcely needs emphasis. Paterson (1933) stressed the need for research in the fodder grasses, while Wood (1934) observed that animal nutrition in the tropics is almost an unknown field. Harrison (1941) and Van Wyk (1951) emphasised the importance of digestion trials as a means to improved feeding and an approach to the wider problem of livestock improvement. Faulkner (1933) considered the study of nutrition to be of prime importance in livestock improvement and to constitute a first means of approach to the problem. He emphasised that cattle improvement in Nigeria must be preceded by an improvement in their diet. Native tribes rarely follow any fixed methods of feeding their stock and the poor class of cattle prevalent in many countries is doubtless a reflection of inadequate feeding.

During the last few years, as a result of the increased interest in animal husbandry and the high cost of cutting and carting fodder grasses, pastures have assumed much more importance in Trinidad. Until the introduction of exotic pasture species such as Pangola, Toco and Lucuntu grasses, Savanna grass was the only pasture species of any importance grown in Trinidad. This latter grass is generally regarded as a rather poor species. As part of the pasture grass improvement work at I.C.T.A. a series of digestibility trials were arranged to obtain critical information concerning the yield and nutritive value of Savanna grass grown in Trinidad.