

INTRODUCTION

During the last two decades grass investigation work in temperate countries has received much attention. Woodman's experiments in 1925 on the feeding value of young leafy grass produced results which proved of great economic importance in animal nutrition. Since 1925 many workers have been engaged in the field of grass research and have contributed to the following findings which should at least prove of interest to workers in the tropics:-

(a) the protein content of young grass is much higher than that of mature grass.

(b) the fibre content of grass increases with increase in age.

(c) the nutrients in young grass are more highly digestible than those in mature grass.

(d) the leaves are richer in protein than the stems.

(e) young grass is comparable in feeding value with a concentrate such as linseed cake and not a roughage as was formerly supposed.

In the tropics, the grasses which are generally used for feeding livestock, grow very much taller and coarser than temperate region grasses, many of them when mature have thick woody stems which are highly unpalatable. The question arises, are the above findings, which are playing such an important role in animal nutrition in temperate countries, applicable to grasses in the tropics ?. Taking into consideration the nature and habit of tropical grasses the above findings may not only apply but prove of greater moment.

In Trinidad grass is mainly looked upon as a roughage; it is frequently not cut and fed until it has become mature and woody. Coconut cake is the only home produced protein-rich food available in reasonable quantities. In the case of

dairy cows, milk production in the past has been maintained by the use of imported concentrates (T.A. 1940).

The importance of relying more on home produced feeding stuffs in Trinidad and less on those imported has long been realised, but information regarding the best method of utilising the foodstuffs available, though gradually growing, is still fragmentary. The feeding value of the grasses commonly used have not yet been completely assessed.

Grass breeding work in the tropics probably holds great possibilities for the future but up to the moment this aspect has received little or no attention.

The necessity for further grass investigation work in Trinidad becomes obvious on considering milk production alone. According to Harrison (T.A.), the average annual imports of condensed, dried and preserved milk is \$860,000 which is approximately equivalent to 3,000,000 gallons of fresh milk.

If each member of the population consumed daily the minimum amount of milk deemed necessary for proper nutrition, the figures would probably greatly exceed those stated. Expansion of the dairy industry is desirable; expansion would be facilitated and success assured by the home production of all, or a large proportion, of the high protein foodstuffs necessary.

It has been the aim of stock owners in the tropics to obtain high producing dairy cows, a considerable amount of breeding work has been carried out, but it should be remembered good breeding can only express itself through good feeding and if the feeding side of the problem is ignored breeding alone is not likely to be attended by much success.

A thorough investigation of the available grasses is a necessary preliminary to the adoption of the most economical feeding policy, and if we can expect tropical grasses to behave similarly to temperate grasses, it may go a long way towards solving the protein scarcity problem.