

INTRODUCTION

The complexity of the study of grazing behaviour, which is described by Hammond as "making a science of the stock man's art" was pointed out as long ago as 1926 by Stapledon and Jones (1927), who wrote: "So intimate is the grassland complex and all its relations, and the grazing animal and all its reactions, that it appears obvious that it is not possible to understand one complex without understanding the other".

In the Tropics, knowledge of the 'connection between the grassland complex and all its relations' is very far behind what it is in the Temperate regions. These studies of grazing behaviour in Trinidad therefore, have not taken into consideration the quality and quantity of grass as it might affect grazing behaviour, but until such time as more pasture grasses are found, and their capabilities determined, it is impossible for grazing behaviour studies to be on such a high plane as they are in Temperate regions.

This investigation is essentially a study of the grazing cycle of Zebu Cattle and how it is affected by seasonal and other factors. It is therefore, a study of the reaction of the animal to its environment, and to some extent of the factors influencing the environment.

The obvious practical application is that if as a result of behaviour studies, management practice can be altered in such a way as to reduce the amount of energy spent by cattle in obtaining their feed, than the time spent in studying time and motion in the physical activities of the stock will be worth while. Another aspect is that from such studies, the management might be altered so as to benefit the pastures better.

Tribe (1950) suggests that care must be taken in interpretation and application of results from animal behaviour studies, though Pearson-Hughes points out that various workers such as Doran (1943) Nicholls (1944), Seath and Millar (1947) and Taylor (1951) have successfully applied results from grazing habit studies in the solution of grass management problems. Taylor for instance has suggested that through the application of grazing habit studies the degree of helminth infestation in livestock can be reduced, as peculiarities of grazing behaviour might influence infestation by this parasite. Seath and Millar found that feeding supplementary hay on hot days when cows ceased to graze, did not increase the yield of milk.

As regards work in the tropics and sub-tropics, it has become increasingly evident that it is dangerous to apply techniques of grazing management of Temperate regions, to any breed of cattle in the Tropics: Payne et al. (1951) in Fiji have stressed this, and numerous other workers such as Bonsma et al. (1940), Rhoad (1938) and Seath and Millar (1946) have shown how hot climates strongly influence the grazing behaviour of Temperate breeds of animals with some Temperate blood in them. Furthermore the grazing behaviour of Zebu animals completely adapted to their environment is different to that of Temperate animals adapted to their respective environment.

With the increasing intensifying of animal management in the tropics as a result of increasing food requirements, it is becoming necessary to find out more about indigenous cattle as well as Temperate breeds and crosses. The grazing habits are a small part of the required knowledge, and it is known that Temperate breeds have different grazing habit in the Tropics. A small amount of work has been done studying these habits in the Tropics, but those of Zebus are not well known. It seems that it would be necessary to know something about their habits if they are to form a basis, and sometimes be the only suppliers of milk and meat of the steadily increasing populations in Tropical areas.