

PART I.

INTRODUCTION AND REVIEW OF LITERATURE.

The mixed farming system which is so much a feature of temperate agriculture is conspicuously absent in the Tropics. Basically this is because neither leys nor permanent pastures can be successfully employed since there are no really suitable species which will tolerate grazing over a period of any length. The ever-pressing need for more food, particularly of animal origin demands that much better use be made of the worlds grazing areas and where possible that cropping and animal enterprises be closely integrated; unless grass species which will tolerate grazing can be developed these most desirable ends will never be achieved.

The need to integrate stock and crops, in particular, has not gone unnoticed, in the British Territories in Africa much effort has been bent towards developing suitable species; so far only a measure of success has been achieved. In the Caribbean only small use has been made of planted grass and this is reflected in a statement in "Jamaica Farmer" 'Until a few years ago the sole planting activities of the average farmer consisted entirely of minute acreages of grass whose sole purpose was soil conservation.' In Trinidad until the introduction of Pangola grass some five years ago, there was practically no planted pasture and even today when there is a subsidy payable for the planting of Pangola grass, the area in planted pasture grass can still be measured in hundreds of acres.

The system which prevailed and still predominates was the stall feeding of cattle with sugar cane tops in the appropriate season and when this was not available with soilage grasses cut from plots established for this purpose or grass cut from the roadsides and

waste ground. In 1956 a cattle population of approximately 45,000 was maintained from an area of about 18,000 acres (of which only a small fraction was grazing pasture). The picture is substantially the same today and from the stocking rate which would obtain if all these animals were maintained on this acreage of grass it is obvious that a proportion of the fodder for stall feeding is obtained from the waste ground and roadsides. The only factor which saves this system from being hopelessly uneconomic is that the grass is free and it is interesting to note that farmers have been known to keep several cows on an acreage so small that the stocking rates are prodigious; in fact all the fodder is collected elsewhere.

Whereas this system may be suitable for the farmer who keeps a small number of cattle, the products of which are for his own consumption, it is patently obvious that it has no place in a system designed to produce livestock products on a scale suitable for wholesaling and even less so where it is desirable to produce at a quality and price competitive with the imported product. The present cattle population of Trinidad and Tobago (45,000) is very low - as is also that of the British West Indies (approx. 300,000) (latest figures available; taken from United Nations information for non-selfgoverning Territories, 1946). The main reasons for this are twofold. Firstly the low productive capacity of the Creole cattle and secondly until recently the great limiting factor to increasing production was the absence of a suitable pasture grass. The cheapness of the imported product together with these disadvantages meant that practically all meat and animal products were and still are imported.

The reason why farmers are being urged to produce more animal products are not hard to find. Whilst it is true that imported livestock products are fairly cheap and freely available, there are indications that this state of affairs will not always be so.