

A STUDY OF THE FECUNDITY OF DAIRY CATTLE

IN TRINIDAD

I. INTRODUCTION

Dairy farming in the tropics presents problems which are either unknown or are of less importance in temperate countries. Sterility, impaired breeding efficiency and problems of general management occur wherever cattle are raised, but in the tropics, the climatic conditions of high temperature and either very high or very low humidity, together with factors associated with foodstuffs and management, result in a more exacting environment than the now improved European cattle experience in their native countries. Pests and diseases peculiar to the tropics, present an additional problem, so that all these factors together probably adversely influence the normal development of the animals almost from birth due to reactions to disease and an upset of the physiological balance, leading to functional disturbances. Consequently, such breeding irregularities as silent heat, anoestrus, extended service periods and functional sterility would appear to be of greater importance in the breeding and management of dairy cattle in the hot tropics.

Associated with tropical climates, are such factors as feeding and housing difficulties, daily routine troubles and lack of care and attention to the animals due to the low standard of efficiency of native labour. Dairy farming in the tropics is a comparatively new development, so much has yet to be learned about adapting the practices of temperate dairying to tropical conditions, and possibly evolving a breed of cattle better able to withstand the more exacting conditions.

Trinidad as part of the humid tropics, exhibits most of the difficulties in dairy farming already mentioned. Dairy cattle are kept under three different systems in Trinidad. First, the peasant system, where from one to six cows are kept, the milk being consumed by the peasant's family and the surplus retailed locally. Secondly, dairies consisting of about thirty cows, under the supervision of the owner or manager, and run as commercial dairy herds. The third type, the largest dairy herds, some operated in conjunction with sugar estates, carry up to a hundred milking cows. This thesis is concerned with the last two types of dairy herds. Here, the cattle are kept in barns of the English type, and are fed usually with elephant grass, Guatemala grass, Para grass or sugar cane tops, together with a mixture of concentrates. The daily routine is somewhat as follows: The cows are brought in from the pasture (if any) at 6.00 a.m., given concentrates, milked and then taken out again to the pasture. At noon they are brought in again to be fed with grass and concentrates, and for watering; milked at 4.00 p.m., and turned out to pasture for the night. In many cases little or no pasture is available so that the cows remain the whole time in the barn. The herd is usually supervised by a native "driver" or foreman, with one native in charge of about twelve cows, for which he is responsible for their milking, care and treatment. The type of labour compared with the labour available in most temperate countries is of a very low standard. It is the "driver's" responsibility to observe when the cows come on heat, and put them to the bulls. A cursory examination of the breeding records of the cows kept under such conditions was made and it was noted that there appeared to be a fairly high proportion of sterility.