INTRODUCTION

In recent years, artificial insemination, hereafter referred to as "A.I.", has received increased attention in most dairy countries of the world. Undoubtedly, it is one of the most useful tools which have been made available to the livestock breeders.

The pioneers of investigations on A.I., among them Spalanzani, Rossi, Sir Everett Millais and Ivanoff, have always received due credit for their work in this field. The recognition of the possible application of A.I. in improving tropical animal husbandry was accompanied by the need for basic experimental work with regard to its various aspects - particularly reproductive physiology of tropical species and the actual technique of this practice.

In Kenya, as in England, Denmark and the U.S.A., investigations were undertaken after the war. Between 1941 - 1946, preliminary work had begun in many areas in the tropics, including Trinidad, Jamaica, the Philippines and Brazil. The earliest attempts at introducing A.I. often met with disappointing results. In most cases this was due to the prevalence of genital diseases and reproductive disorders - important features in unimproved tropical species.

So far, most of the work in the tropics has been carried out with cattle and buffaloes. Recent work indicates the tendency to build up new breeds from indigenous cattle by the introduction of varying degrees of zebu blood with the use of A.I. This has been practised for many years in the Philippines, Jamaica, Trinidad, the southern U.S.A. and in Queensland. At present many centres of tropical research are pursuing fruitful investigations on the fundamental problems of the technique.

This reading project has been divided into two parts. The first (Part A) covers the Physiological aspect, and is concerned with research work, carried out in the tropics and adjacent regions on all aspects of A.I. The second (Part B) is a regional survey of the tropical areas where A.I. has been introduced.

It may be said that the extent to which A.I. has been used in developed territories is directly related to the relative importance of livestock in the agricultural economy of the area.