INTRODUCTION

Wise Agricultural policy is greatly dependant on having numerous and varied, up to date facts available. It is only through having these facts that the problems facing the industry can be clearly seen, and the correct policy for research and development can be formulated. At present, the number of facts about agriculture which many underdeveloped countries posses are exceedingly limited. In many cases they may amount to no more than the figures relative to external trade. Little knowledge can be obtained about the state of the industry merely from Import and Export figures and no development policy can be based on these alone.

Large scale surveys such as the 1950 World Census of Agriculture are carried out under the auspices of the United Nations Organisation, but the amount of information which can be collected from one area is necessarily limited.

There are two main means of obtaining the necessary information available to Government bodies. The first of these is the complete census and, secondly, there is the sample survey.

In a census the whole population is surveyed. It is obvious that in order to carry this out on a large scale in an underdeveloped country a large number of trained personel will be required. Even if the personel are available, the collection of the information is a difficult and lengthy process where the communications are poor and the farming communities are scattered.

The summarisation of the numerous population surveyed in a census is lengthy procedure, and it may be a considerable time before the results of the census can be available. This, of course, means that besides being extravagant in time and labour, the money costs involved are also very high. Perhaps it will result in being more expensive than the results justify.
In a census, there are usually many initial non-responses, and it is often impracticable to make re-visits because of the expense involved. As a result of this the census is in danger of being incomplete.

In a sample survey, only a selected proportion of the population is enumerated and, as a result of this, there is a saving in time, labour and money. Although there is a cash saving, the cost of surveying each unit will be higher than in a census. However, more detailed information can be obtained in a sample survey, because a greater number of questions can be asked per unit interviewed.

Non-responses will also occur in a sample survey, but since the number will be much smaller than in a census, it is more practicable to make re-visits in order that the information obtained is complete.

The speed of the field work and the analysis of results is much quicker where only a sample is taken, and this is of great importance where fairly rapid decisions on policy have to be made.

Thus, sample surveys have many advantages over censuses in finding out facts about agriculture especially in underdeveloped countries. The local organisation of such surveys is often carried out by the Department of Agriculture and this is the reason why Post Graduate students at I.C.T.A., take part in such a survey, in order that they have some knowledge of the techniques used.

The survey of farmers who supply cane to Trinidad Sugar Estates Ltd., was chosen not only for the above reason. Since the time available to organise and complete the sample survey was limited the subject chosen had to have a reasonably good frame as there was insufficient time to construct one. The importance of a good frame will be discussed later.

It was known that Trinidad Sugar Estates Ltd., would have such a frame available, and they had already stated their willingness to co-operate. A relatively minor point in the selection of this
particular sample survey was that there was a lack of detailed knowledge of sugar cane farming in the area.

The team then met Mr Bateson, the cane farmers' supervisor of Trinidad Sugar Estates Ltd., and as a result gained valuable background information about the organisation of the cane estates and the tenant farmers, and also the problems encountered in the area. Access was given to all records which might prove useful. It was from these that the frame used in the survey was chosen.

**SAMPLING PROCEDURE**

1. **The Frame and Stratification**

   It was shown by Auckland et al (1959) in their survey of the Banana Industry, that a good frame is essential for the success of any survey of this nature. In this survey, the frame used was a card index of all farmers with contracts to deliver cane to Trinidad Sugar Estates Ltd., and the tonnage of cane delivered in 1960. The cards were arranged according to estates on which the company rented land to farmers and there was a separate file for all the private lands. Within these various groups the individual farmers' names were arranged alphabetically.

   The only alternative frame was the file in which the company kept a record of the acreage rented by farmers. However, the acreages of plots of land held freehold were unknown and with the limited time available it was impossible to obtain them. This immediately ruled out stratification based on acreages which in any case, was found to be unsuitable by Bohum et al (1960) in their survey of cane farming in the Caroni area.

   Several means of stratification were discussed and all but one were discarded due to lack of information or because they were likely to be ineffective.