

INTRODUCTION

This report is an account of a Sample Survey planned and carried out by a team of four post graduate students under the supervision of Dr. A.L. Jolly, as project work for the Diploma in Tropical Agriculture. The reasons for conducting a sample survey were twofold. First, that it should give the post graduate students practical experience in the principles and techniques of a sample survey, and secondly, that the survey should gather useful information about some aspect of the agriculture of Trinidad. The first reason was considered the more important and therefore some details of the sample size and the type of information collected, were influenced by this fact.

It was the intention of the College that the team should be assisted during the field work by the other post graduate students, which was so designed that they gained experience both in obtaining information from interviews with farmers and also from eye observations in the field.

The choice of subject for this survey was limited. Previous experience at the College had shown that it was advisable to survey a population for which a comprehensive list or "frame" was already available. Only one term was available for the preliminary work and such a short period did not allow the compilation of a frame by the team.

Previous sample surveys conducted by post graduate students at I.C.T.A. had covered Land Utilization (Currie, P.S. (1955) and Buckler B. (1956)), A Survey of Food Gardens (Currie J.A. (1957)), A Sample Survey of Citrus (Alexander J.I. (1958)), A Survey of Bananas in Trinidad (Auckland J.N. (1959)) and A Survey of Sugar Cane Farmers (Bohum, R.A. (1960)). This latter survey was confined to cane farmers selling cane to the factories owned by Caroni Ltd., and it was suggested that the team might continue the study of cane farmers in Trinidad by a survey of those producing cane for Orange Grove Factory, Trinidad Sugar Estates Ltd. After considering other possible subjects this suggestion was adopted.

Various factors commended the estate as a suitable subject for the survey. The area of the estate was compact and was within easy travelling distance of the College, so that a relatively intense survey could be made at fairly low cost. Also complete lists of farmers would be available at the factory offices.

Records made available to the team showed that Trinidad Sugar Estates Ltd. own 5,322 acres of land 10 miles east of Port-of-Spain, extending from the North Bank of the Caroni River up to the foothills of the Northern Range. Of this acreage 1,920 acres are rented to cane farmers, and the factory contracts with 1,196 farmers, their tenants and others, to buy cane. Most of the cane farmers live in the urban areas bordering the Eastern Main Road between Tunapuna and Arouca.

The team made the aim of the survey - "To determine the extent, productivity and methods of the farming carried out by the cane farmers selling cane to Orange Grove Factory". The exact definition of a "cane farmer" was discussed. When the team studied the lists of farmers who held contracts with the company to deliver cane, they discovered that all but 5 out of the 1,196 farmers were men who rented or owned no more than ten acres of land and the maximum anyone produced from one farm was just over 200 tons of cane. Of the other five contract holders, three were teaching or experimental farms, one was an estate growing cane as a catch crop in young citrus fields and the fifth was a contractor who bought cane from about 500 tenants and sold it in bulk to the Sugar Company. Four out of these five contract holders produced over a thousand tons of cane each and the team considered that the information obtained from them could not be usefully compared with the rest of the farmers. They were therefore excluded from the survey, and the term "cane farmers" applied only to the 1,191 small farmers.

The value of a sample survey for obtaining accurate and often detailed information about a population of persons, households, farms or other units needs emphasising. In the past thirty years this technique has found wide application in many different fields. Sample surveys have been used in industry and commerce, social studies, forestry and in agriculture. In

agricultural surveys they have been used for land utilization studies, to discover details about crops, crop varieties grown, yields and for forecasting production. In every instance the number of enumerators that are needed for a sample survey is much less than for a corresponding full scale survey. Enumerators can therefore be chosen for their skill and experience, enabling greater accuracy and detail of information to be achieved. Because only a sample of the population is enumerated, the time taken to obtain and analyse the information is greatly reduced; therefore the results are available in a much shorter time and at less cost than for a complete survey.

In countries like the United Kingdom or the United States of America, complete lists of units of a population exist and there are well developed systems for contacting individuals. In these circumstances, postal questionnaires have been used with much saving in manpower, see Cooke, D. & Sheard, G.F. (1959). However, sample surveys are equally applicable in underdeveloped countries where little or nothing is known about an area, its population or agriculture. Before a sample survey can be conducted under these conditions, a preliminary survey will have to be made when the population, or every household or farm is listed, or in the case of a land survey, when areas will be sampled, maps will have to be constructed. See Nanton W.R.E. (1957), Purseglove J.W. (1946).

One reason why a study of cane farmers was such a convenient subject for a sample survey exercise was that complete lists of the cane farmers supplying each factory were readily available. By law, The Production of Cane Ordinance, Chapter 23, No. 12, no farmer shall grow canes for sale to a manufacturer unless he has entered into a contract with the manufacturer to do so. Therefore each factory had a list of all the farmers holding contracts with them.

The most useful list was the farmer's individual account card, arranged in alphabetical order by contract number. On each card was recorded the total tonnage of cane delivered in each year, any advanced payment made, fertiliser bought on credit, the rent of their land that had been deducted and the total payment made to the farmer.