

ABSTRACT

The main hypothesis of this study is that the risk aversion of farmers results in the low yields and profitability which they experience. This study assumed that elements of risk and uncertainty, particularly in production, can be reduced if farmers have relevant and timely information available to them. Given this hypothesis the following objectives were therefore specified.

- (1) To measure the mean risk aversion of farmers.
- (2) To suggest the ways in which a Farm Management Information System could aid farmers in their decision making.

In order to realise these objectives a group of vegetable farmers in the county of Caroni in Trinidad and Tobago were interviewed and production data obtained. The data which consisted of mean revenue, mean costs, technical requirements for each crop enterprise and the resource constraints on the farm were modelled into a Representative Farm Model using a variant of the Minimization of Total Absolute Deviation (MOTAD) analysis. The solution of this model resulted in a series of

efficient farm plans with maximum expected utility and associated total negative deviation. Risk was measured as the deviation from expected return and each farm plan generated had a risk aversion coefficient associated with the objective function and the total negative deviation. The model was representative of the group of farmers surveyed and the resulting schedule of risk aversion coefficients and objective function was used to determine the risk aversion coefficients of individual farmers and ultimately the mean risk aversion coefficient. The results showed that the farmers are risk averse.

Knowledge of the farmers' risk aversion and the solutions generated by the model were considered as the basis for planning by the individual farmer in his attempt to maximize his expected utility. The relevance and usefulness of a Farm Management Information System (FMIS) was also reviewed but the application of the model to the FMIS is not part of this study.