

CHAPTER II

OBJECTIVES AND METHODOLOGY

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Drip irrigation is an effective tool and a method that economises the use of water. Lack of water is a human agony. Repeated droughts in the world, particularly in India, have aggravated the food problem everywhere. Dr. Pillai K.M.* is of the opinion that as more and more people use more water and farming and other use, it has become imperative that man finds economical ways of utilizing water.

Grape cultivation has taken deep roots in Maharashtra over the last 25 years. Tasgaon Taluka is a pioneer area in the grape cultivation. Lot of research work has been carried out in Tasgaon with respect of grape cultivation. New varieties of grapes like 'Tas Ganesh' are invented and developed in Tasgaon Taluka. In the recent years i.e. from 1982 Tasgaon is facing acute shortage of water. Hence, the drip irrigation system was introduced on an experimental basis. The results of drip irrigation are found to be best suited for grape-yard. With this point in view, the present study tries to analyse the economic effects of drip irrigation system for grape cultivation in Tasgaon area. From the study point

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of view the drip irrigation system is compared to the traditional irrigation system i.e. furrow method. The objective of this study is to investigate the difference between these two methods on the following grounds.

- 1) Grape Yield.
- 2) Fertilisers required
- 3) Labour
- 4) Pesticides
- 5) Quality of grapes.

The objective of the study, therefore, is to analyse the utility, feasibility, the cost of installation, expenditures and returns with regards to the two different systems and also to compare the two irrigation systems and the possible results of these.

In order to bring out the significance of drip irrigation system for grape cultivation, the study is conducted on such farms where the drip system of irrigation has not been used, simultaneously with those farms which have adopted the drip system of irrigation. These farms otherwise have similar characteristics.

Tasgaon Taluka is in Sangli District and is recognised as having a substantial potential for increased grape cultivation. At the moment, grape cultivation does comprise an important agricultural activity in the region.

Grape cultivation and culture need initially, high investment, both of capital expenditure and non-capital expenditure in nature. The capital expenditure includes expenses involved in levelling of land, preparing it in all aspects for grape cultivation and protection from pilferage and various irrigation facilities. The non capital expenditure includes that on the purchase of various inputs.

A preliminary list of all the villagers, in Tasgaon Taluka where grapes were grown and where drip system of irrigation was in vogue, was made.

There are 104 villages in Tasgaon Taluka. Out of these villages, six were selected for the study having a substantial area under grape cultivation and where drip irrigation system has been adopted by the cultivators. These villages are approximately 10 to 15 kilometers from Tasgaon in different directions. This has been done mainly for the reason that these villages are congruent to Tasgaon and to each other, on the basis of convenience sampling technique.

An initial discussion on grape cultivation with drip irrigation and related problems and prospects was undertaken with some of the farmers. There were 125 farmers in Tasgaon Taluka, who were using drip irrigation system of watering grape farms. Out of these 19 were chosen, in the six villages, with the help of random sample tables. Five more, with no drip irrigation system were also selected randomly

from the villages chosen. In fact, the farmers selected had a history of grape cultivation, but had opted for the drip irrigation system of watering grape farms lately. A questionnaire was prepared and administered to the sample farmers. The data, so collected, was collated and analysed. Some secondary data by way of publications and literature have also been made use of.

The study, however, suffers from a limitation, that of possible improper, inadequate and incomplete data supplied by the respondent farmers, not necessarily through design, Since farmers, by nature are wary of revealing information to others, particularly to strangers, even if the information required is to be used only for an intellectual exercise, the veracity of their statements could not be counterchecked. Thus to the extent of that the data supplied is complete and authentic, this study becomes more acceptable. But to the extent that the data supplied are incomplete, less authentic, the result has to be accepted with caution.