

## FARM LEVEL EXPERIENCED CONSTRAINTS IN GRAPE FARMING

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### ABSTRACT

The study was conducted in Theni and Dindigul district of Tamil Nadu. Three blocks viz., Chinnamanoor block of theni , Athoor block and Nilakottai block of Dindigul was selected purposively since grapes was cultivated intensively in a larger area and for longer years (25-30 yrs). Proportionate allocation was employed to draw the 150 respondents from the three blocks of the two districts. Non-availability of organic manure (94.60%), high cost, non-availability of skilled labour (93.66%), fluctuation of market price and unassured income (92.66% and 91.33%), Delayed response of organic inputs (90.00%), high cost of organic inputs (89.33%) were felt as major constraint by the respondents.

**Keywords:** input, organic manure, market, grape and labour

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## INTRODUCTION

Grape is an important commercial fruit crop cultivated in TamilNadu. The cultivable area, production in Tamil Nadu is 28,400 ha and 47,720 MT in 2013-14 (Indian Horticulture Database, 2014). In TamilNadu, Theni district stood first in both area and production of grapes with an area of 2047 ha followed by Dindigul district with an area of 117 ha (2009-10). The production of grapes in Cumbum valley of Theni district was 90,000 tonnes of Paneer grapes and 10,000 tonnes of Thomson seedless grapes every year. The unique feature here is that the fruits are harvested throughout the year, while in most of the grapes growing centres elsewhere, the season ends with summer. Panneer grapes, which is a special type of black grapes, is endemic to Dindigul. Earlier studies indicated that recommended practices were not adopted by the farmers as per recommendations. Cent per cent of the respondents were found to be adopted recommended practices in land preparation, planting, training and pruning operations as such without any modification (Mansingh, 1992). Slightly more than half of the respondents (54.00 %) have not adopted the recommended spacing. All the farmers applied FYM (Farm Yard Manure) in less quantity against the recommended dose and applied nitrogenous fertilizers more than the recommended dose. The spray of insecticides and fungicides was more than the recommendation. Hinge (2013) indicated a vast gap in adoption of key practices such as fertilizer application, organic manure application, filling material application, pruning time,

training methods, gibberlic acid treatment, as they are not being followed by many, as per the recommendation. Constraints analysis is an important component in extension research since it helps in identifying the constraints and developing suitable strategies for overcoming the constraints. Thus the present study was carried out to find out the constraints faced by the grape growers in the adoption of recommended technologies.

## METHODOLOGY

The study was conducted in Theni and Dindigul districts of Tamil Nadu since these districts are the intensive Grape cultivation zones in Tamil Nadu. A combination of purposive and proportionate random sampling method was employed. Three Taluks viz., Uthamapalayam taluk of Theni district, Dindigul taluk and Nilakottai taluk of Dindigul district were purposively selected considering their maximum area under Grape. Among the ten blocks, Chinnamanoor block of Theni district, Athoor block and Nilakottai block of Dindigul district were selected by purposive sampling, based on the judgement of Extension personnel of the State Department of Horticulture and Agriculture who opined that Grape is being grown for the past 25-30 years in the above three blocks. Totally there were 600 Grape cultivators in the three selected blocks. It was decided to conduct the study with one-fourth of the farmers and hence the sample size was fixed as 150. Random Sampling was used to draw the 150 respondents from the three blocks. The data were collected with the help of a well-structured and

pretested interview schedule developed for this purpose.

## RESULTS AND DISCUSSION

### Constraints in the adoption of recommended grapes growing technologies

The respondents were requested to express the major constraints they had experienced in adoption of recommended grapes growing technologies. The constraints expressed by them were analysed, grouped and presented in the Table 1.

**Table 1: Constraints encountered by the respondents in the adoption of recommended grape growing technologies**

| Constraints                                      | F   | %     |
|--|-----|-------|
| Non-availability of organic inputs               | 142 | 94.60 |
| High cost and non-availability of skilled labour | 140 | 93.66 |
| Fluctuation in market price                      | 139 | 92.66 |
| Unassured Income                                 | 137 | 91.33 |
| Delayed effect of organic inputs                 | 135 | 90.00 |
| High cost of organic inputs                      | 134 | 89.33 |
| Uncontrollable climatic factors                  | 125 | 83.33 |
| Water scarcity                                   | 122 | 81.33 |
| Lack of technical guidance                       | 120 | 80.00 |
| Competition among grapes growers                 | 100 | 66.66 |

Non-availability of organic manure was the major constraint expressed by majority (94.6%) of the respondents. Reduction in cattle population was reported by all the grapes growers. As the grazing land in the study area had shrunk cattle were not allowed to graze

in the nearby forest. As a result farmers were not interested in keeping the animals and they were sold to near by states. More over non-availability of labour to tend the cattle in the study area was also reported by the farmers. All these facts might be the reasons for "non-

availability of organic inputs", being felt as major constraint by the respondents. More than three-fourth of the respondents (93.66%) expressed that high cost and non-availability of skilled labour as their constraints. Grapes cultivation involves skilled operations like pruning and training. As there were less number of skilled labourers in the study area during peak season the demand for labour was high. Exploiting the shortage of labourers they demanded high wage. Moreover younger generations were not interested in farming and they opted for either employment in companies higher education in the near by towns.

The price of grapes is subjected to wide fluctuation and the quality of grapes is affected by the unpredicted weather. The selling price of grapes at farm gate was same for years together but the input cost increased over years, raising their cost of cultivation. They were not able to get back the amount invested. The market price, which had high fluctuation decided their income. Grapes cultivation involved high risk and uncertainty of returns. These above factors might have influenced the majority of the grapes growers (92.66% and 91.33%) to report fluctuation of market price and unassured income as a constraint. Delayed response of organic inputs was expressed as a constraint by ninety

per cent of the respondents. Naturally, organic inputs takes greater gestation period with hidden benefits. But, the grapes growers need immediate knock down effect in controlling the pests and diseases to get more yield. This could be the reason why majority of the

respondents were not satisfied with organic inputs. Similarly, around ninety percent of the respondents indicated high cost of organic inputs as a constraint. Organic inputs need to be applied in large quantity. But the availability / supply of organic inputs was lesser than the demand which naturally raises it's cost. A tractor load of FYM costs Rs.2000 and goat manure Rs.4500. Moreover the bulk quantity needs to be transported to the field with much difficulties. Besides, it involves high transportation and labour charges for loading and unloading. This might have influenced the grapes growers to express high cost of organic inputs as a constraint.

Unpredicted weather was expressed as a constraint by 83.33% of the respondents. Grapes crop largely depends on climatic conditions. Occurrence of rains and heavy wind at flowering and ripening stages affects the grapes severely. Especially rain before harvest will affect the quality of the berry, affecting it's price. Moreover unpredicted weather increases incidence of pests and diseases. All these facts might have influenced the respondents to state unpredicted weather / climatic factor as a constraint. Water scarcity was felt as a constraint by 81.33 per cent of the respondents. Grapes crop requires huge amount of water at the establishment stage. Delayed monsoon, failure, reduction in groundwater led to the problem of water scarcity. In the study area they were not able to get water even after digging up to 1000 feet. Continuous extraction had depleted the ground water which was the prime

source of irrigation. Installation of drip irrigation also demands high investment and hence the respondents considered water scarcity as a important production constraint.

Lack of technical guidance was stated by 80.00 per cent of the respondents as one of the constraints. At the time of interview, the grapes growers reported that they were not provided with adequate information from the state departments of agriculture and horticulture. Further it was known that only around 10 percent had attended 1 to 2 technical trainings. Some grapes growers had the occasion to meet the extension personnel in their office rarely. Under these circumstances they have cultivated the crops on their own experience, with the help of fellow grapes growers, input dealers, grass root level workers and extension personnel of private pesticide companies. Two-third of the respondents (66.66%) felt that competition among grapes growers as a constraint in the adoption. The grapes growers were more concerned of getting higher yield and income than their fellow grapes growers. This spirit of competition forced them to go for any number of pesticides and fertilizers forgetting the environment ignoring the recommended doses.

## CONCLUSION

Thus continuous learning should be promoted for the grape growers on adopting the recommended dose of organic inputs and inorganic inputs in their field. Trainings could be given to grape growers to prepare organic manure themselves so that organic

manures are available within the village in required quantity and at required time. Farming community should be educated about the positive impact of organic inputs on the environment and health of human beings though it has delayed response.

## REFERENCES

**Mansingh, M and Paul.,** Reinvention and discontinuance of recommended practices in grapes and sugarcane, Ph.D. Topical Research Report, Tamil Nadu Agricultural University, Coimbatore, 96-99, 1992.

**Hinge, R. B., Angadi, J. G., Manjunath, I., Basavaraja, H., and Kataraki, P. A.** 2013. Adoption of wine grape production technology in Maharashtra. *Karnataka J. Agric. Sci.*, **26 (1)** : 80-84.

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