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## An Analysis the responsible factors for choosing sugarcane cultivation in Baghpat district of Uttar Pradesh

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### Abstract

The present study pertained to the Baghpat district of Uttar Pradesh state. The district is purposely selected for this study because these district main commercial activities of the people living in this region are making and selling Gur and Khandsari Sugar, which is an agro-based industry. For studying the Responsible factor for choosing sugarcane crops. The primary data were collected for the year 2016-2017. Primary data were collected from the sample respondents by conducting personal interview and pretested schedule. A list of the entire villages was obtained from the block head quarters of each selected block and one village from each list was selected randomly, Baoli, Malakpur, villages from Baraut Block and Kakadipur, Basoli villages from Chhaprauli Block were selected for the study purpose therefore having highest area under sugarcane crop cultivation. From the selected villages, random samples of 20 respondents from each village were selected. The response of sugarcane growers prefer to grow sugarcane cultivation because availability of good processing facilities, availability of local market, More demand of crop, more profitable in comparison of other crops, availability of Input resources and essay to grow sugarcane crop in the study area. The study area farmers were performing specialized cropping instead of diversified cropping.

**Keywords:** Sugarcane crop, specialized cropping, agro-based industry, processing facilities, Gur & Khandsari sugar

### Introduction

Sugarcane is an important commercial crop of the world and the cultivation of sugarcane, in India dates back to Pre-Vedic period (2000 B.C.). India is one of the principal centers of the origin of the sugarcane. Sugarcane is grown in diversified climatic condition i.e. tropical and sub-tropical. Sugarcane cultivation and development of sugar industry runs parallel to the growth of human civilization and is as old as agriculture. The importance and use of sugarcane and sugar in the country's socio-economic milieu is deep rooted and immense. In the current day rural economy set up sugarcane cultivation and sugar industry has been focal point for socioeconomic development in rural areas by mobilizing rural resources, generating employment and higher income, transport and communication facilities. Sugarcane (*Saccharum spp.*) is an important commercial crop in India and plays a pivotal role in agricultural and industrial economy of our country. Sugarcane is an important commercial crop of the world and more than 100 Countries produce sugar, at present Brazil, Cuba, Mexico, India and Thailand are the leading producers of sugarcane. Currently 69 per cent of the world's sugar is consumed in the country of region. Globally, sugarcane is cultivated over an area of 20.10 million hectares with a production of 1,318.10 million tones and productivity of 65.5 tonnes per hectare. Sugarcane area and productivity differ widely from country to country. Brazil has the highest area (5.34 million hectares) while Australia has the highest productivity (85.1 tonnes per hectare) India ranks second among the sugarcane growing countries of the world in the both area and production after Brazil with an area under sugarcane cultivation of 4.94 million hectares with an average yield is 68.6 tons per hectare [1]. Among different states of the country, Uttar Pradesh occupies first place in area (22.34 lakhs hectare) and production 1623.38 lakhs million tons (2016-17) but in terms of productivity it ranks seventh [9]. Baghpat district of Sugarcane area 76387 thousands hectare and production 5718.88 million tons (2016-17) [2]. Keeping in view the above discussion and importance of the sugarcane crop, the present study was an attempt to analysis the Responsible factors for choosing sugarcane crop cultivation in the study area.

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## Methodology

### Sampling procedure

For studying the Responsible factor for choosing sugarcane crop growers. The primary data were collected for the year 2016-17. Primary data were collected from the sample respondents by conducting personal interview and pretested schedule. A list of the entire villages was obtained from the block headquarters of each selected block and two villages from each list was selected randomly, Baoli, Malakpur, villages from Baraut Block and Kakadipur, Basoli villages from Chhaprauli Block of Baghpat district for the study purpose therefore having highest area under sugarcane crops cultivation. From the selected villages, random samples of 20 respondents from each village were selected. Finally, samples of 80 farmers were selected using stratified random sampling with probability proportion for the present study. Then, selected farmers were divided into three categories i.e. marginal farmer (having land up to one hectare) and small farmer (1-2 hectare), medium farmer (2-4 hectare), based upon their operational size of land holding by using standard classification given by Department of Land Resources, Government of India. Collected data were tabulated according to need and purpose of study. Simple tabular analysis was made. The data will be analyzed by using interpreted in terms of frequency, percentage and score values.

## Analytical Tools

The following statistical methods were used in the present study.

### Mean Score

It was obtained by dividing total score of each statement by total number of respondents.

Mean Score = Total Score of each statement / total number of respondents

### Mean Per cent Score

It was calculated by multiplying total obtained score of the respondents by 100 and divided by the maximum obtainable score.

Mean Per cent Score = Total Obtained Score / Maximum Obtainable Score x100

### Rank

Ranks were accorded in descending order according to the mean per cent score (MPS) obtained.

## Results and Discussion

### Responsible factors for choosing sugarcane Cultivation

The farmers prefer to grow Sugarcane crop because in various types of responsible production and marketing factors avail in the study area. It is presented in Table.1

**Table 1:** Extant of responsible factors for choosing sugarcane cultivation by the farmers N=80

| Sr. No.  | Responsible factors  | Marginal Farmers |      | Small Farmers |      | Medium Farmers |      | Overall |      |
|--|--|------------------|------|---------------|------|----------------|------|---------|------|
|  |  | MPS              | Rank | MPS           | Rank | MPS            | Rank | MPS     | Rank |
| <b>A. Production related responsible factors for choosing sugarcane cultivation by the farmers</b> |  |                  |      |               |      |                |      |         |      |
| 1.   | More profitable in comparison of other crops                 | 95.62            | I    | 96.87         | I    | 90.63          | IV   | 94.37   | I    |
| 2.   | knowledge about production technology                        | 88.12            | III  | 90.62         | III  | 93.12          | I    | 90.62   | II   |
| 3.   | Availability of HYV Variety                                  | 85.62            | V    | 91.87         | II   | 93.12          | II   | 90.20   | III  |
| 4.   | Availability of Input resources                              | 90.62            | II   | 86.87         | IV   | 89.37          | VI   | 88.95   | IV   |
| 5.   | Availability of good quality water for irrigation            | 88.12            | IV   | 85.62         | VI   | 91.87          | III  | 88.53   | V    |
| 6.   | Easy to Cultivate  | 79.37            | VII  | 86.87         | V    | 89.37          | VII  | 85.20   | VI   |
| 7.   | Availability of Credit by KCC                                | 76.87            | VIII | 84.37         | VIII | 90.63          | V    | 83.95   | VII  |
| 8.   | Minimum risk (losses to crop)                                | 80.62            | VI   | 85.62         | VII  | 84.37          | VIII | 83.53   | VIII |
| <b>B. Marketing related responsible factors for choosing sugarcane cultivation by the farmers</b>  |  |                  |      |               |      |                |      |         |      |
| 1.   | Availability of processing facility                          | 96.87            | I    | 94.37         | II   | 98.13          | I    | 96.03   | I    |
| 2.   | More demand of produce in local area                         | 95.62            | II   | 96.87         | I    | 90.63          | IV   | 94.37   | II   |
| 3.   | Availability of Local Market                                 | 90.63            | III  | 93.12         | III  | 95.62          | II   | 94.12   | III  |
| 4.   | Exact system of marketing                                    | 83.12            | IV   | 80.62         | IV   | 91.87          | III  | 85.20   | IV   |
| 5.   | Availability about market news for comparison to other crops | 75.62            | VI   | 80.62         | V    | 90.63          | V    | 82.29   | V    |
| 6.   | Availability of transportation                               | 78.12            | V    | 78.12         | VI   | 89.37          | VI   | 81.87   | VI   |

MPS = Mean per cent score

Analysis of the table no.1 indicated that The most farmers prefer to grow Sugarcane crops because more profitable in comparison of other crops overall mean per cent score (MPS) 94.37 (Ranks I). The second most important Responsible factor by the farmers was knowledge about production technology overall mean per cent score 90.62 with rank II. The other important responsible factor reported by the farmers were availability of HYV Variety overall mean per cent score 90.20 (rank III), Availability of input resources overall mean per cent score 88.95 with rank IV and availability of good irrigation facilities overall mean per cent score 88.53 (rank V). In addition to the above, responsible production factors, easy to cultivate (rank VI), availability of credit by KCC (rank VII) in the study area. From the table, it was indicated that the responsible marketing factors availability of processing facilities was ranked as the most important factor among the sugarcane growers with mean per cent score

(MPS) value of 96.03 (rank I) followed by More demand of produce in local area overall mean per cent score 94.37 (rank II). Availability of local market was ranked overall mean per cent score (MPS) value of 94.12 (rank III), exact system of marketing of sugarcane growers rank IV with a MPS value of 85.20. Fifth major responsible marketing factors reported by the sugarcane farmers good sources of avail market news and intelligence were overall mean per cent score of 82.29, and availability of transportation for sugarcane rank VI with a mean per cent score of 81.87 in the study area.

### Conclusion

It is clear concluded that the study area farmers were performing specialized cropping instead of diversified cropping. The most responsible production & marketing factors for choosing sugarcane crop cultivation by the farmers, more profitable in comparison of other crops,

availability of HYV Variety, availability of input resources, good irrigation facilities, availability of processing facilities, availability of local market, more demand of produce in the study area.

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