

Original Research Article

<https://doi.org/10.20546/ijcmas.2024.1302.004>

Economic Analysis of Sugarcane Production in District Basti of Uttar Pradesh, India

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ABSTRACT

Keywords

Farm Business
Income, Family
Labour Income

Article Info

Received:
12 December 2023
Accepted:
20 January 2024
Available Online:
10 February 2024

Sugarcane is the major cash crop of Uttar Pradesh. Study on economic analysis of sugarcane production in district Basti of Uttar Pradesh has been carried out. The cost of cultivation and profitability of sugarcane crop on marginal, small and large farmers have been estimated using the procedure suggested by Commission of Agricultural Cost and Prices (CACP).

Introduction

Sugarcane is one of the most important crops in the world because of its strategic position and immense uses in the daily life of any nation. Sugarcane contributes about 60 percent of total world sugar requirement, while remaining, 40 percent come from sugar beet.

Sugarcane cultivation in India dates back to pre-Vedic period and presently the country stands second largest producer of sugarcane and sugar in the world after Brazil.

Among different states of the country, Uttar Pradesh occupies first place in area and production of sugarcane. Several studies on economics of Sugarcane cultivation has been carried out. Singh *et al.*, (2008) estimated the economics of Sugarcane based farming system in

western Uttar Pradesh. An economic analysis of Sugarcane cultivation and its processing based farming system has been carried out by Singh, Gomatee (2013). Zaidi and Munir (2014) studied the socioeconomic status of Sugarcane growers of western Uttar Pradesh. Priyanka and Alka (2017) and Goswami and Verma (2018) analysed the Sugarcane productivity in Uttar Pradesh and Maharashtra. Ranjan *et al.*, (2020) has done economic analysis of Sugarcane cultivation if eastern Uttar Pradesh.

The present study has been undertaken for estimating the cost of cultivation and returns per hectare from Sugarcane crop in district Basti of Uttar Pradesh by Rajat Kumar Pal for his M.Sc. (Ag) thesis work (Pal and Rajat Kumar, 2022).

Materials and Methods

The study has been undertaken in the district Basti of Uttar Pradesh. An appropriate sample of sugarcane growers of marginal small and large size categories have been selected for required information. The cost concept developed by Commission for Agricultural Cost and Prices (CACP) have been used in the present study.

Cost Concepts

Cost A

It includes wages of hired labours, cost of seed, hired machinery charges, cost of manure, cost of fertilizer, cost of irrigation, cost or insecticides and pesticide, interest on working capital land revenue, depreciation on farms implementation of machinery, rent paid for leased land.

Cost B

Cost A + rental value of own land + interest on capital

Cost C

Cost B + inputted value of family labour.

Cost of cultivation

Cost of cultivation is defined as cost incurred in the production of commodity in a unit area. In general, the unit of cost of cultivation is rupees per hectare.

Measures of farming income

Gross Income

It is the value of gross sale and home consumption of farm products. It is the monetary value of total product on the farm.

Farm business income

It is the earning after deducting Coat A from total

Earnings.

Farm Business Income = Gross Income – Cost A

Family labour income

It is the income received after deducting Cost B from the gross income.

Family Labour Income = Gross Income – Cost B

Net Income

Net income is the earning of farm as a whole after deducting the various expenses.

Net Income = Gross Income – Cost C

Results and Discussion

The cost of cultivation of sugarcane crop on marginal, small and large form is given in table 1.

Cost A was highest on large farms i.e., ₹ 71,000 followed by small farms i.e., ₹ 65,000 and lowest on marginal farms i.e., ₹60,200 per hectare. Similarly, the cost B was highest on large farms, followed by small and marginal farms. The total cost of cultivation was also highest on large farms. ₹1,19,000 followed by ₹85,200 on small farms and ₹82,700 on marginal farms.

The income from sugarcane crop on marginal, small and large farms is given in table 2.

The yield of sugarcane was highest of 850 qt/ha on large farms, followed by 740 qt/ha on small farms and 680 qt/ha on marginal farms. The gross income was highest that is ₹2,97,500 on large forms followed by ₹2,59,000 on small farms and ₹2,38,000 on marginal farms. The similar trend has been observed in farm business income, family labour income and net income per hectare on large small and marginal farms. The average net income was ₹1,69,200 per hectare in the study area.

Table.1 Cost of cultivation of sugarcane on marginal, small and large farms

Item	Marginal	Small	Large	Average
Cost A	60200	65000	71000	65400
Cost B	77700	81200	86000	81633
Cost C	82700	85200	119000	95633

Table.2 Gross Income and Net income from sugarcane on marginal, small and large farms

Particulars	Marginal Farms	Small Farma	Large Farms	Average Farms
Yield qt/ha	680	740	850	756.67
Price (Per qt)	350	350	350	350
Gross Income (Per ha)	238000	259000	297500	264833
Net Income (Per ha)	155300	173800	178500	169200
Farm Business Income (Per ha)	177800	194000	226500	199433
Family Labour Income (Per ha)	160300	177800	211500	183200

Uttar Pradesh occupy major position of sugarcane growing region. Sugarcane cultivation provides employment to a large number of farmers.

The cost of cultivation and return from sugarcane crop has been estimated for marginal, small and large farmers in Basti district of Uttar Pradesh. It has been observed that sugar cane crop is remunerative and generates highest income on large farms followed by small and marginal farms.

Author Contribution

Rakesh Kumar: Investigation, formal analysis, writing—original draft. Rajat Kumar Pal:—Formal analysis, Investigation,

Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Research Funding: Not applicable

Ethical Approval: Not applicable.

Consent to Participate: Not applicable.

Consent to Publish: Not applicable.

Conflict of Interest: The authors declare no competing interests.

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How to cite this article:

Rakesh Kumar and Rajat Kumar Pal. 2024. Economic Analysis of Sugarcane Production in District Basti of Uttar Pradesh. *Int.J.Curr.Microbiol.App.Sci.* 13(2): 29-32. **doi:** <https://doi.org/10.20546/ijcmas.2024.1302.004>