

Economics of strip v/s conventional method of sugarcane planting in western Maharashtra

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ABSTRACT

The investigation was based on the farm level data collected from 60 sugarcane growers adopting strip method and 60 adopting conventional method from the 6 selected villages of 2 Tahsils from Satara district of western Maharashtra. The results of the study indicated that, due to adoption of strip method of sugarcane planting there existed a saving in, the use of important resources like labour, planting material and manure and fertilizers over the conventional method of planting. This saving was maximum in the use of manure 16.40 per cent followed by planting material 12.43 per cent and bullock and human labour by 11.46 and 7.25 per cent, respectively. There was reduction in the per hectare total cost of cultivation of sugarcane by 3.37 per cent in strip method than the conventional one. This reduction was 9.61 per cent at the level of cost 'A', which is the actual cost to be paid by the growers. The same method of sugarcane planting was also resulted in the increase of cane yield to the extent of 12.96 per cent and gross produce and net profit by 27.07 and 45.58 per cent over a conventional method. The production function analysis indicated that, the human and bullock labour, nitrogen, and phosphorous fertilizers were use efficiently under both the methods of sugarcane cultivation. The study advocates a wide spread of strip method of sugarcane plantation technology which resulted in saving of important and costly inputs, low cost of production and high returns.

Key words : Sugarcane, Strip (Patta) method, Planting, Inputs

INTRODUCTION

Sugarcane is an important cash crop grown in Maharashtra. Maharashtra ranks first in recovery of sugar, second in area and fourth in productivity of sugarcane in the country. The sugar industry, which is based on the raw produce that is sugarcane, occupied a pivotal place on the economic map of Maharashtra. This is because the state alone produces more than 40 per cent of the total production of sugar in the country. Success of sugar industry depends upon various factors of which adequate supply of raw produce *i.e.* sugarcane to the factories is a crucial one. It is, therefore, necessary to have production plans, which will ensure an adequate and steady supply of sugarcane to the sugar industry in Maharashtra. Either through area expansion of the crop or enhancing the productivity, or both can increase the production of sugarcane. However, in view of the constraints on resource such as irrigation, for the crop in the state, it would be difficult to allocate more land and water resources to this crop, but resort to adopt such a technology which would result in increasing and maintaining the high productivity as well as low cost of production of the crop. A planting pattern a part of sugarcane cultivation technology becoming popular in Maharashtra. The conventional ridges and furrow method was generally used for cultivation of sugarcane. But nowadays a strip (Patta) method of sugarcane cultivation has been introduced and it is undertaken by the large number of the farmers.

Strip method of sugarcane planting:

In the strip method, the furrows are opened at 90 cm in clay soils, 75 cm in medium soils, and 60 cms in light soils. By opening the furrows the planting is done by following ways.

- One row strip - planting is done in the alternative rows by keeping middle row fallow.

- Paired row planting is done in paired row by keeping one row fallow between the two-paired rows. Some time paired row are opened by keeping the strip of recommended distance instead of opening of furrow in entire field.

- Four row planting or skipped row planting - in this case sugarcane is planted in the four rows by keeping one row follow between the two four rows

Advantages of strip planting:

- Crop get more sunlight and aeration due to this there is increase in dry matter and number of millable cane with professed growth

- Due to the more space between the two rows inter crop of 3 to 3½ month can be taken. It will provide additional income to the farmer by utilizing available resources.

- Avoid the competition between the plants for the nutrient, space and water.

- Interculturing operation like earthing up, weeding can be done with the help of machinery. Even harvesting of cane can be possible by machine.

- Saving of manpower and inputs like water, fertilizers