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# Participation of Rural Farm Women in Sugarcane Production

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**ABSTRACT**

**The study was conducted during 1992-93 in two districts of Uttar Pradesh i.e. Rae-Bareilly and Faizabad districts. Majority of the respondents were in medium age group, illiterate and having small size of family. Majority of (57 per cent) rural farm women were having medium level of decision making ability and 36 per cent of rural farm women were having high level of involvement in work during sugarcane cultivation operations. Most of rural farm women were also having medium level of participation in sugarcane cultivation.**

**The decision making ability and involvement in work by rural farm women were found highly significantly related with women's participation. Education was also found significantly correlated with women's participation in sugarcane production.**

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## INTRODUCTION

Farm women are backbone of Indian agriculture. No any agricultural field operation is beyond women. Women contribute in operations like seed selection, sowing, transplanting, weeding, manuring, harvesting, threshing, winnowing, storing, marketing, rearing of livestock and poultry keeping etc. In many of these operations, they are more efficient than men. In sugarcane production more than fifty per cent of work is done by rural farm women. Most of the activities are carried out by rural farm women in sugarcane cultivation, except ploughing, pata and marketing. Rural farm women are actively participating in all agricultural practices of sugarcane cultivation but in decision making they are not actively participating due to illiteracy and male dominancy in society (Tata & Bali, 1988).

The bulletin of all India coordinated research project on sugarcane (1991) reported that among major sugarcane growing countries in the world, India, the native of sugarcane, stands second in the cane production and contributes more than 20 per cent of the world's sugar out-put. Although considerably large area is under this crop (3.4 million hectares), the productivity in general is quite low i.e. 65.4 tonnes/ha, occupying ninth position in the

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world. The study was taken with the following objectives :-

i) to assess the decision making and involvement in work by rural farm women in sugarcane production.

ii) to measure the women's participation in sugarcane production.

iii) to correlate socio-economic variables with women's participation.

## MATERIALS AND METHODS

The study was conducted during 1992-93 in Rae-Bareilly and Faizabad districts of Uttar Pradesh purposively, because in these two districts most of the farmers were sugarcane growers. Two villages from each districts were selected randomly making the total number of four villages. From Rae-Bareilly districts Khagipur Sadwa and Rajapur villages and from Faizabad district Biroli and Lilapur villages were selected with the help of simply random technique. The farm women from the each village were grouped into five categories on the basis of land holdings viz. marginal (less than 1 ha); small (1-2 ha); medium (2-4 ha); large (4-8 ha) and very large (above 8 ha) and five respondent women were selected randomly from each category. Therefore, twenty five respondent women were selected from each village. Thus, total hundred respondent women were included in the study from the four selected villages.

A detailed structured schedule was prepared to measure the different variables. To measure the socio-economic variables, the available scale of Trivedi and Pareek (1963) was used and for decision making ability of rural farm women a schedule was prepared. The responses of the respondents towards particular inquiry were recorded on a three-point-contiunum scale viz. 'individually' 'jointly' and 'occasionally' and weightages 3, 2 and 1 were assigned respectively. The decision making scores assigned to each respondents were sum totalled and mean ($\overline{X}$), standard deviation (SD) were computed by statistical methods. The decision making ability was categorised into three levels i.e. the respondents having scores below ($\overline{X}$ – S.D. x 0.5) were grouped under the category of 'low level decision' scores between ($\overline{X}$ – S.D. x 0.5) and ($\overline{X}$ + S.D. x 0.5) were grouped under the category of 'medium level decision' and scores above ($\overline{X}$ + S.D. x 0.5) were grouped under 'high level decision' category. To measure extent of involvement in work by rural farm women similar schedule was prepared. The responses of the respondents towards a particular inquiry were recorded on a three-point-continuum scale viz. 'regularly', 'sometime' and 'never' and weightages 3, 2 and 1 were assigned respectively. It was also categorised into three levels similarly as in case of decision making ability. to measure the interrelationship in between independent and dependent variables the regression analysis statistical technique was used.

## RESULTS AND DISCUSSION

### Decision making ability

The decision making ability of rural farm women towards sugarcane cultivation was categorised into three levels i.e. low level, medium level and high level.

TABLE 1

**Decision making ability of rural farm women.**

| *Decision making* | *Frequency* | *Per cent* | *Mean* | *S.D.* |
|---|---|---|---|---|
| **Low level** (below 37.5 scores) | 22 | 22% | | |
| **Medium level** (between 37.5 to 41.7 scores) | 57 | 57% | 39.61 | 4.21 |
| **High level** (above 41.7 scores) | 21 | 21% | | |
| Total | 100 | 100% | | |

The data presented in the above table 1 revealed that majority of rural farm women were having medium level of decision making ability in sugarcane cultivation operations i.e. 57 per cent; followed by low level decision making ability by rural farm women i.e. 22 per cent and out of 100 women respondents only 21 women were having high level of decision making ability. Therefore, the majority of rural farm women were having medium level of decision making ability and lowest in high level of decision making ability during sugarcane cultivation operations.

**Involvement in work**

The involvement in work during sugarcane cultivation by rural farm women was also categorised into three levels i.e. low level involvement, medium level involvement and high level involvement.

TABLE 2

**Involvement in work by rural farm women.**

| *Involvement level* | *Frequency* | *Per cent* | *Mean* | *S.D.* |
|---|---|---|---|---|
| **Low level** (below 65.12 scores) | 30 | 30% | | |
| **Medium level** (from 65.12 to 69.52 scores) | 34 | 34% | 67.32 | 4.40 |
| **High level** (above 69.52 scores) | 36 | 36% | | |
| Total | 100 | 100% | | |

The data presented in table 2 revealed that the majority of rural farm women were found in the category of high level involvement in work during sugarcane cultivation i.e. 36 per cent and 34 per cent women were found under category of medium level involvement and

followed by 30 per cent of rural farm women having low level of involvement. It indicates that majority of rural farm women were having high level of involvement in sugarcane production activities.

**Women's participation in sugarcane cultivation**

To find out the rural farm women's participation the following simple relationship was hypothesized :

$$WP = \sum_{i=1}^{N} (PD + PI)$$

Where,
WP = Women's participation

PD = Total scores of participation in decision making obtained by rural farm women

PI = Total scores of participation in involvement in work obtained by rural farm women.

N = Total number of respondents

The women's participation in sugarcane cultivation was measured and categorised into three levels i.e. the respondents having scores below ($\bar{X}$ – S. D. x 0.5) were grouped under the category of 'low level participation', scores in between ($\bar{X}$ – S.D. x 0.5) and ($\bar{X}$ + S.D. x 0.5) were grouped under the category of 'medium level participation' and scores above ($\bar{X}$ + S.D. x 0.5) were grouped under 'high level participation'.

*TABLE 3*

**Women's participation in sugarcane cultivation.**

| *Participation level* | *Frequency* | *Per cent* | *Mean* | *S.D.* |
|---|---|---|---|---|
| **Low level** (below 103.72 scores) | 26 | 26% | | |
| **Medium level** (from 103.72 to 109.53 scores)) | 47 | 47% | 106.63 | 5.81 |
| **High level** (above 109.53 scores) | 27 | 27% | | |
| Total | 100 | 100% | | |

The table 3 revealed that the majority of rural farm women were under the category of medium level participation i.e. 47 per cent and 27 per cent farm women were under the category of high level participation and followed by low level participation i.e. 26 per cent. Out of 100 women repondents 47 women were having medium level of participation followed by 27 women having high level of participation in sugarcane cultivation. The women's participation in sugarcane cultivation was slightly higher. Therefore, rural farm women were participating in both cultivation activities and decision making during sugarcane production.

### Interrelationship of socio-economic variables with women's participation

The interrelationship between independent and dependent variables is presented in table 4. The regression analysis of the seven independent varibles i.e. age; education; family size; land holding; farm assests possessed; decision making and involvement in work with the dependent variable i.e. women's participation was computed.

*TABLE 4*

**Regression analysis of women's participation.**

| *Variables* | *Regression coefficient* | *'T' value* |
|---|---|---|
| Age | 3.182 | 1.059 |
| Education | 0.29 | 2.517* |
| Family size | -2.07 | -0.195 |
| Land holding | -4.97 | -1.958 |
| Farm assets | 0.46 | 1.590 |
| Decision making | 0.47 | 7.615** |
| Involvement in work | 0.97 | 15.389** |

*Significant at 5% level of probability.
**Significant at 1% level of probability.

The decision making ability and involvement in work by rural farm women were found highly significant at 1 per cent level of probability with women's participation. Simultaneously, education was also found significant at 5 per cent level of probability with women's participation in sugarcane cultivation. Whereas, age; family size; land holding and farm assets possessed were found to have non-significant relationship with women's participation.

### Conclusion

Majority of rural farm women were highly participating in operations of sugarcane cultivation but their participation in decision making during sugarcane cultivation was of medium level. It mat be due to illiteracy or lack of knowledge among women. The development of education level among rural farm women will be the most important component for increasing their participation in agricultural production.

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