

Drudgery Reduction and Perception of Difficulty by Women in Sugarcane Production

M.Deepa*

Scientist (Home Science)

Krishi Vigyan Kendra, Guntur (AP). 522034

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ABSTRACT

Sugarcane industry in India is an important contributor to the national economy through the production of multiple products for national and international consumption. Present study was conducted in Guntur district in adopted villages of Krishi Vigyan Kendra. 30 women from near by villages involved in sugarcane production were selected and interviewed through interview schedule developed for the study. Drudgery index (DI) was calculated on overall discomfort scale. Results revealed that majority of women were involved in trashing of sugarcane, detopping, land preparation activities and disposal of trash. Respondents were involved in detrashing which is more drudgery prone (93.3%), detopping (90%). Sugar cane stripper was used to assess the drudgery index, more discomfort was experienced by traditional method compared to sugar cane stripper. 50% of respondents experienced highly discomfort and 37% of the respondent's experienced moderate discomfort on overall discomfort rating scale. Drudgery can be reduced by introducing drudgery reducing tools to improve their efficiency. Women has to be equipped with other information and knowledge to be on par with men.

Key words : DI

I. INTRODUCTION

Removal of sheaths in sugarcane is highly laborious job and requires more labour. Generally detrashing is carried out by hands for sheathing of

sugarcanes, known as detrashing. It involves more stress on hands and musculo skeletal. Detrashing in the sugarcane crop is an important agricultural operation, affecting crop yield. The arduous operation of detrashing sugarcane is usually performed manually with both hands.

Few models of detrashers have been developed for detrashing sugarcane. A detrasher is a small hand tool for stripping green and dry leaves. It is also used for detopping of cane after harvest. It is used for standing crops and pushed vertically to remove sheaths away from stalks. Sugar cane has more than 25 large number of sheaths equal to number of nodes. However all the leaves are not productive. Therefore it is important to remove under sheaths. Sugar cane is held between two jaws, knife is absent in this model, stripper is moved vertically to remove sheaths. Harvesting sugarcane is a very labour intensive and time-consuming and requires high strength.

II. MATERIALS AND METHODS:

Interview schedule was developed to collect basic information on socio economic profile, role of women in sugar cane cultivation and extent of drudgery perceived and drudgery index was calculated based on drudgery index score. Adopted villages were selected to collect the information from women involved in sugarcane cultivation and harvesting activities. Total thirty women were selected to collect the information and results were analyzed.

III. RESULTS AND DISCUSSION

Socio Economic Profile of respondents (n=30)

Table : 1: Age of respondents: (n=30)

| S.No | Age | Frequency (%) |
|------|-------|---------------|
| 1 | 18-23 | 8 (27%) |
| 2 | 23-28 | 4 (13%) |
| 3 | 28-33 | 4 (13%) |
| 4 | 33-38 | 6 (20%) |

| | | |
|---|------------|---------|
| 5 | 38 & above | 8 (27%) |
|---|------------|---------|

From the above table it was found that majority of women were in the age group of 18 – 23 years and 38 above.

Table : 2: Educational status of the respondents (n=30)

| S.No | Educational Level | Frequency (%) |
|------|-------------------|---------------|
| 1 | Primary | 0 |
| 2 | Upper Primary | 2 (7%) |
| 3 | High School | 28 (93%) |
| 4 | College | 0 |
| 5 | No schooling | 0 |

From the above table it was found that majority of respondents (93%) completed high school and 7% completed upper primary school.

Table:3: Type of Family (n= 30)

| S.No | Type of family | Frequency (%) |
|------|----------------|---------------|
| 1 | Nuclear | 12 (40%) |
| 2 | Joint | 18 (60%) |

From the above table 60% of respondents belong to joint families and 40% of respondents belongs to nuclear families.

Table: 4: Source of income o respondents (n=30)

| S.No | Source of Income | Frequency |
|------|------------------|-----------|
| 1 | Daily wage | 30 (100%) |
| 2 | Other source | 0 |

From the above table it was found that there is no other source of income. 100% of the respondents earn from daily wages

Table:5: Extent of respondent involvement in sugarcane cultivation activities (n=30)

| S.No | Extent of participation | Frequency(%) |
|------|--------------------------|--------------|
| 1 | Land Preparation | 23 (77%) |
| 2 | Ploughing | 11 (37%) |
| 3 | FYM application | 8(26.6%) |
| 4 | Weeding | 30 (100%) |
| 5 | Forming ridges & furrows | 4 (13.3%) |
| 6 | Stem cuttings | 30 (100%) |
| 7 | Fertilizer application | 27(90%) |
| 8 | Detrashing | 28 (93%) |
| 9 | Plant protection | 5(16.6 %) |
| 10 | Cutting the cane | 30(100%) |
| 11 | Detopping | 27 (90%) |
| 12 | Cleaning the cane | 21(70%) |
| 13 | Bundling | 20 (66.6%) |
| 14 | Transportation | 4 (13.3%) |
| 15 | Collection of trash | 18 (60%) |
| 16 | Trash disposal | 23 (76.6%) |

From the above table it was found that most of the respondents were involved in sugarcane production activities. Majority of women involved in weeding in sugar cane crop (100%), cutting the cane (100%), detrashing (93%), fertilizer

application (90%), detopping (90%), trash disposal after sugarcane ,cleaning of canes (70%), harvesting of cane (76.6%),FYM application (26.6%), ploughing (37%) helping male members in ploughing and FYM application,land preparation

(23%). Women involvement was very least in plant protection activities, loading and transportation. Majority of women were involved in trashing of sugarcane, detopping, land preparation activities

and disposal of trash. From the above table it can be concluded that women were involved more in drudgery related activities.

Table :6: Perception of difficulty by the respondents. (n=30)

| S.No | Extent of participation | Perception of difficulty |
|------|--------------------------|--------------------------|
| 1 | Land Preparation | 13 (43%) |
| 2 | Ploughing | 29 (96.6%) |
| 3 | FYM application | 30 (100%) |
| 4 | Weeding | 30 (100%) |
| 5 | Forming ridges & furrows | 28(98.3%) |
| 6 | Stem cuttings | 30 (100%) |
| 7 | Fertilizer application | 23 (76.6%) |
| 8 | Detrashing | 28 (93.3%) |
| 9 | Plant protection | 23 (76.6%) |
| 10 | Cutting the cane | 30 (100%) |
| 11 | Detopping | 27 (90%) |
| 12 | Cleaning the cane | 12 (40%) |
| 13 | Bundling | 17(56.6%) |
| 14 | Transportation | 28 (93.3%) |
| 15 | Collection of trash | 22(73%) |
| 16 | Trash disposal | 28 (98%) |

From the above table it was found that respondents perceived difficulty in various tasks involved in sugarcane production. Most drudgery related activities were Farm yard manure application, weeding, stem cuttings, trash disposal forming ridges and furrows, detrashing, Though women involvement in these activities is more in few activities they were experiencing more stress due to these activities. In few activities women were involved very few because it involves machinery. From this it can be understood that

women had poor skills in handling machinery and other tools in production aspects. Respondents were involved in detrashing which is more drudgery prone (93.3%), detopping (90%), Hence respondents were provided handy tools in these aspects to reduce the drudgery. Though women involvement in few activities was very low like transportation, furrow making etc but these activities were perceived as more difficulty due to lack of skills.

Table : 7: Drudgery Index (Overall Discomfort Rating) (n=30)

| S.No | Overall Discomfort Rating | Traditional method of detrashing | Sugar cane stripper (OUAT) model |
|------|----------------------------|----------------------------------|----------------------------------|
| 1 | Highly Discomfort | 15 (50%) | - |
| 2 | More than moderate | 4 (13%) | - |
| 3 | Moderate Discomfort | 11 (37%) | - |
| 4 | Comfortable | - | 16 (53%) |
| 5 | Moderate comfort | - | 5 (17%) |
| 6 | More than moderate Comfort | - | 9 (30%) |
| 7 | Very easy | - | - |

From the above table it was found that from the overall discomfort rating scale, more discomfort was experienced by traditional method compared to sugar cane stripper developed by

OUAT model. 50% of respondents experienced highly discomfort and 37% of the respondents experienced moderate discomfort on overall discomfort rating scale. 53% of the respondents



were comfortable using sugar cane stripper for detrashing of sugar cane. 30 % of respondents felt more than moderate discomfort using sugarcane stripper.

IV. CONCLUSION:

It can be concluded that women were involved major agricultural and allied activities. Women were least involved in furrowing, plant protection activities, transportation, trash disposal etc as they do not have skills in performing the above activities. Drudgery was felt in the areas of detrashing of sugar cane, detopping and trash disposal. It can be dealt and drudgery can be reduced by introducing drudgery reducing tools to improve their efficiency. Women has to be equipped with other information and knowledge to be on par with men.